

\$1,700.00 Flat Fee  
 \$250.00 Notification Fee  
 \$66.00 CLUR fee  
 \$136.70 Acreage Fee  
 (9.113 acres x \$15.00)  
 \$2,152.70 Total

**ZONING MAP AMENDMENT**  
**BOONE COUNTY PLANNING COMMISSION**

A I  
 86959  
 SEP 06 2022  
 BOONE COUNTY  
 PLANNING COMMISSION

Seven (7) copies of submitted drawings are required

An application consists of all fees paid in full, submitted drawings, and a completed application form

**SECTION A:** (To be completed by applicant)

1. Name of Project: Our Lady of the Assumption Boys Academy
2. Location of Project: 472 Beaver Road, Walton, KY
3. Total Acreage of Project: Acreage in SR-1 zone = 9.113 (Total project acreage = 22.9091)
4. Current Zoning of Property: SR-1
5. Proposed Zoning of Property (classification being requested): PF
6. Proposed Use(s) (specify each use):  
K-12 Boys school, parking lot and drop-off loop, athletic field house, storage barn
7. Proposed Building Intensities (specify for each building):  
See attached
8. Are you applying for any of the following (check all that apply):  
 Conditional Use Permit     Variance
9. Current Owner: Our Lady of Good Counsel Church, Jim Brueggemann, Trustee  
and Home Sweet Home Trust, Jim Brueggemann, Trustee  
 Address: 13469 Poole Road  

<u>Verona</u>	<u>KY</u>	<u>41092</u>
City	State	Zip Code

 Phone Number: 859-485-3261      Fax Number: \_\_\_\_\_  
 Email: jimb@bavarianwaste.com
10. Applicant: Viox & Viox, Inc.  
 Address: 466 Erlanger Road  

<u>Erlanger</u>	<u>KY</u>	<u>41018</u>
City	State	Zip Code

 Phone Number: 859-727-3293      Fax Number: 859-727-8452  
 Email: mdesola@vioxinc.com
11. Are there any existing buildings on the site:     Yes     No  
 If yes, indicate how many: 6 houses, 3 barns/garages, 3 sheds



**SECTION B:** (To be completed by Planning Commission staff)

1. Date Received: 9/10/22 Fee Received: \$ 2,152.70 Receipt #: 86959
2. Number of Copies Received: \_\_\_\_\_
3. Has the following been submitted (check all that apply):
  - Completed Application
  - Concept Development Plan
  - Legal Description
  - Names and Mailing Addresses of Adjacent Property Owners
4. Date the application is Administratively Complete (as defined in KRS 100.211): \_\_\_\_\_
5. Staff Reviewer: Todd Morgan
6. Committee Chairperson: Coraia Golick
7. Scheduled Public Hearing Date: 10/15/22
8. Boone County Planning Commission Action: \_\_\_\_\_ Date of Action: 11/2/22
  - \_\_\_\_\_ Approved
  - Approved with Conditions
  - \_\_\_\_\_ Denial
  - \_\_\_\_\_ Other
9. Resolution Number: \_\_\_\_\_

Boone County Planning Commission  
Boone County Administration Building  
2950 Washington Street, Room 317  
P.O. Box 958  
Burlington, Kentucky 41005  
Phone: 859-334-2196 Fax: 859-334-2264  
[plancom@boonecountyky.org](mailto:plancom@boonecountyky.org)  
[www.boonecountyky.org](http://www.boonecountyky.org)

\$1,700.00 Flat Fee  
\$206.94 Acreage Fee  
(13.7961 acres x \$15.00)  
  
\$1,906.94 Total

**CONCEPT DEVELOPMENT PLAN  
BOONE COUNTY PLANNING COMMISSION**

PAID  
810959  
SEP 06 2022  
BOONE COUNTY  
PLANNING COMMISSION

Seven (7) copies of submitted drawings are required

An application consists of all fees paid in full, submitted drawings, and a completed application form

**SECTION A: (To be completed by applicant)**

1. Type of review (check one):
  - Concept Development Plan (includes Utilization of an Underlying Zone in a Planned Development)
  - Change in an Approved Concept Development Plan
  - Long Range Planning Committee Review (as stated in the Houston-Donaldson Study)
  - Long Range Planning Committee Review (as stated in the Union Town Plan)
  - Zone Change Committee Review of previously approved Concept Development Plan Conditions or Zoning Map Amendment Conditions
  - Zoning Administrator Review (as stated in the Central Florence Strategic Plan, An Update of the Parkway Corridor Study)
  - Zoning Administrator Review (as stated in the Mall Road District Study)
  - Zoning Administrator Review (as stated in the I-275/Graves Road Interchange Study)
2. Name of Project: Our Lady of the Assumption Boys Academy
3. Location of Project: 472 Beaver Road, Walton, KY
4. Total Acreage of Project: Acreage in PF zone = 13.7961 acres (Total project acreage = 22.9091 acres)
5. Current Zoning of Property: PF/CD
6. Date of previous zoning map amendment or Approved Concept Development Plan (if applicable):  
2008 (church)
7. Is the site subject to a specialized Land Use Study approved by the Boone County Planning Commission  Yes  No  
If yes, indicate the name of the study: \_\_\_\_\_
8. Proposed Use(s) (specify each use):  
K-12 Boys school, parking lot and drop-off loop, athletic field house, storage barn
9. Proposed Building Intensities (specify for each building):  
See attached
10. Have you submitted a Concept Development Plan:  Yes  No
11. Are you applying for any of the following (check all that apply):  
 Conditional Use Permit  Variance
12. Current Owner: Our Lady of Good Counsel Church, Jim Brueggemann, Trustee  
Address: 13469 Poole Road  
Verona KY 41092  
City State Zip Code  
Phone Number: 859-485-3261 Fax Number: \_\_\_\_\_  
Email: jimb@bavarianwaste.com
13. Applicant: Viox & Viox, Inc.

Address: 466 Erlanger Road

Erlanger KY 41018  
City State Zip Code

Phone Number: 859-727-3293 Fax Number: 859-727-8452

Email: mdesola@vioxinc.com

14. Are there any existing buildings on the site:  Yes  No  
If yes, indicate how many: 2 buildings (one church and one outbuilding)

15. 851 61 ~~2074~~ 2078  
Deed Book Page Number Group Number

16. Have you had a pre-application meeting with the BCPC staff:  Yes  No

17. Have you met or discussed your proposed development with any of the following organizations/agencies (check all that apply):

Prior to construction of improvements, the applicant is recommended to submit copies of the Site Plan to the appropriate organizations/agencies prior to approval by the Boone County Planning Commission.

- |   |   |
|---|---|
| <input type="checkbox"/> Boone County Building Department   | <input checked="" type="checkbox"/> Local Fire District               |
| <input checked="" type="checkbox"/> Boone County Public Works Department  | <input type="checkbox"/> Local School District                        |
| <input type="checkbox"/> Boone County Water District  | <input type="checkbox"/> Northern Kentucky Health Department          |
| <input checked="" type="checkbox"/> Cincinnati Bell   | <input checked="" type="checkbox"/> Owen Cooperative Electric, Inc.   |
| <input type="checkbox"/> Cincinnati/Northern Kentucky International Airport (Kentucky Airport Zoning Commission for height restrictions near the airport) | <input type="checkbox"/> Sanitation District No. 1                    |
| <input checked="" type="checkbox"/> Duke Energy   | <input type="checkbox"/> USDA NRCS/Boone County Conservation District |
| <input type="checkbox"/> Florence Public Services Department  | <input checked="" type="checkbox"/> Other: <u>City of Walton</u>      |
| <input type="checkbox"/> Kentucky Division of Water   |   |
| <input checked="" type="checkbox"/> Kentucky Transportation Cabinet   |   |

18. Concept Development Plan Jurisdiction/Location (check all that apply):  
 Unincorporated Boone  Florence  Walton  Union

19. Waiver of 60 Day Time Requirement by Originator for Final Planning Commission Action:  
In accordance with the provisions of KRS 100.211, the applicant(s) and property owner(s) or originator(s) hereby waive the 60 day time limit for the Boone County Planning Commission to take final action on my (our) Zoning Map Amendment/Concept Development Plan application. This time limit waiver is considered effective immediately upon receipt by the Boone County Planning Commission and expires on 11/18/22

ORIGINAL Property Owner's Signature: Jim Brueggemann Trustee  
(Faxed, Photocopied or Scanned Signatures will NOT be Accepted)

ORIGINAL Applicant's Signature: [Signature]  
(Faxed, Photocopied or Scanned Signatures will NOT be Accepted)

**SECTION B:** (To be completed by Planning Commission staff)

1. Date Received: 9/16/22 Fee Received: \$1406.94\* Receipt #: 86959
2. Number of Copies Received: \_\_\_\_\_
3. Has the following been submitted (check all that apply):
  - Completed Application
  - Concept Development Plan
  - Legal Description
  - Names and Mailing Addresses of Adjacent Property Owners
4. Date the application is Administratively Complete (as defined in KRS 100.211): \_\_\_\_\_
5. Staff Reviewer: Todd Morgan
6. Committee Chairperson: Connie Gulick
7. Scheduled Public Hearing Date: 10/15/22
8. Boone County Planning Commission Action: \_\_\_\_\_ Date of Action: 11/2/22

- Approved
- Approved with Conditions
- Denial
- Other

\* Fee Does Not Include  
CLUB or Advertising  
Since it is being heard  
as part of the  
ZMA Application

Boone County Planning Commission  
Boone County Administration Building  
2950 Washington Street, Room 317  
P.O. Box 958  
Burlington, Kentucky 41005  
Phone: 859-334-2196 Fax: 859-334-2264  
[plancom@boonecountyky.org](mailto:plancom@boonecountyky.org)  
[www.boonecountyky.org](http://www.boonecountyky.org)

# EXHIBIT

“A”

## STAFF REPORT

#2

Request of **Viox and Viox, per Megan de Sola (applicant)** for **Our Lady of Good Counsel Church and Home Sweet Home Trust (owners)** for a Zoning Map Amendment from Suburban Residential One (SR-1) to Public Facilities (PF) for an approximate 9.1 acre area located at 404 Beaver Road, 430 Beaver Road, 438 Beaver Road, 11972 Skyway Drive, 11982 Skyway Drive, 11990 Skyway Drive, 11991 Skyway Drive, 11977 Skyway Drive, the property with the following Property Identification Number (PIDN): 077.00-03-007.01, and the right-of-way of Skyway Drive, Boone County, Kentucky and a Request of **Viox and Viox per Megan de Sola (applicant)** for **Our Lady of Good Counsel Church (owner)** for a Change of Concept Development Plan in a Public Facilities (PF) district for an approximate 13.8 acre area located at 472 Beaver Road, Walton, Kentucky. The request is for a zone change and change of concept development plan to allow the construction of a school building, field house, and a storage barn, use of the existing church, use of existing single-family residential dwellings for church related purposes, and the redesign of parking areas and access drives.

October 5, 2022

### REQUESTS

- A. A Zoning Map Amendment application has been submitted to rezone the properties referenced above from Suburban Residential One (SR-1) to Public Facilities (PF) to allow the construction of a new school building, field house, and barn, with associated parking lot improvements. The proposal would also allow the houses at 11972, 11982, 11990 Skyway Drive and 404 Beaver Road to be converted to church uses. The Zoning Map Amendment area is approximately 9.1 acres.
- B. A Change in Approved Concept Development Plan application has been submitted to allow portions of the new school building, parking improvements, field house and barn to be constructed at 472 Beaver Road (existing church/school parcel). The Change in Approved Concept Plan area is approximately 13.8 acres.

### SUBMITTED CONCEPT DEVELOPMENT PLAN

The following improvements are shown:

- A. Construction of a boys' school and parking lots to the east of the church. The proposed school would be two-floors and could be up to 63,000 square feet in area if the future classrooms are constructed. A maximum of 15 classrooms are shown.
- B. Full student enrollment of the school would be 360 students, K-12.
- C. The auditorium could seat up to 312 people.
- D. Construction of a field house near the existing ball field. The main floor would be 11,200 square feet (80' x 140') and the mezzanine level would be 3,400 square feet.
- E. Construction of a 1,920 square foot barn (40' x 48') near the ballfield.

- F. Demolition of the houses and access points at 430 and 438 Beaver Road and 11991 Skyway Drive.
- G. Skyway Drive is proposed to be vacated. A portion of the road would be retained and be converted to a church driveway.
- H. A new access point (full access) is shown on Beaver Road.

#### SITE HISTORY FOR 472 BEAVER ROAD

- A. On 6/26/03, Walton Board of Adjustment approved a Conditional Use Permit allowing a 21,650 square foot church on the approximate 13.8 acre property (472 Beaver Road). Eight (8) conditions were imposed on the approval.
- B. On 8/7/07, Boone County Planning Commission approved a Major Site Plan for a 11,640 square foot church with 99 parking stalls.
- C. On 5/14/10, Boone County Planning Commission approved a Major Site Plan allowing grading and parking lot modifications. On-site parking was increased from 99 stalls to 129 stalls.
- D. In 2011, Boone County Planning Commission approved a Zoning Map Amendment, which rezoned the approximate 13.8 acre parcel from Suburban Residential One (SR-1) to Public Facilities (PF), to allow a K-12 school to operate out of the church and for the church function to be retained. Three (3) conditions were imposed on the approval (see attachments).
- E. On 3/19/20, Boone County Planning Commission approved a Major Site Plan to allow grading, a detention basin, and a driveway to be constructed to the ballfield. The plan also showed that the house at 11977 Skyway Drive would be demolished as part of the scope of work.

#### APPLICABLE ZONING REGULATIONS

- A. Section 308 of the Boone County Zoning Regulations states that before any map amendment is granted, the Planning Commission and legislative body shall use the following criteria:
  - 1. The map amendment is in agreement with the adopted comprehensive plan and any specific study designed to further detail the Boone County Comprehensive Plan for the location in question; or
  - 2. The existing zoning classification is inappropriate and that the proposed zoning classification is appropriate; or
  - 3. There have been major changes of an economic, physical, or social nature not anticipated in the adopted comprehensive plan that substantially alter the area's character.
- B. Section 1200 (Public Facilities District) of the Boone County Zoning Regulations states that "the purpose of this article is to provide a specific zoning classification for a variety

of public facilities to promote the proper location of these uses and insure their long-term continuity and compatibility with adjacent land uses.”

- C. Section 3221 of the Boone County Zoning Regulations allows one access point for each 500 feet of road frontage.
- D. Section 3222 of the Boone County Zoning Regulations requires access points on opposite sides of arterial, collector, and subcollector roadways to be located opposite each other.
- E. Section 3605 of the Boone County Zoning Regulations would require the zone change area to be landscaped if the school and parking lot additions are constructed.

#### SITE CHARACTERISTICS

- A. The overall site is approximately 22.9 acres in area and has approximately 1,350 feet of frontage on Beaver Road.
- B. The property at 472 Beaver Road contains a two-story church/school, stage, 129 stall parking lot, athletic/soccer field, and an accessory storage building. The athletic field and accessory building are located at the rear of the site and are accessed from a gravel driveway that extends off the rear parking lot.
- C. Access to the church/school is provided from a full access point on Beaver Road. Another temporary access point was created by connecting the southeast parking lot to the house at 438 Beaver Road.
- D. Single-family residential dwellings exist at 404, 430, and 438 Beaver Road and 11972, 11982, 11990, and 11991 Skyway Drive. The houses currently have individual access points on Beaver Road or Skyway Drive.
- E. Boone County GIS shows that the topography of the site varies from 910' above sea level at the main entrance, to 900' above sea level at Beaver Road and Skyway Drive, to 810' above sea level where an intermittent blue line stream exists in the middle of the property, to 840' above sea level in the northern part of the site. It should be noted that grading is currently occurring on site per the 3/19/20 approved Site Plan.
- F. Significant landscaping exists on site and in the Interstate right-of-way.

#### ADJACENT LAND USES AND ZONING

North: I-71/75

South: Beaver Road, Our Lady of the Sacred Heart Academy (PF), Single-family dwellings (SR-1), and Undeveloped 60 Acre Parcel (I-1)

East: I-75

West: Single-family dwelling fronting on Beaver Road (SR-1)

RELATIONSHIP TO COMPREHENSIVE PLAN

- A. Our Boone County – Plan 2040 “2040 Future Land Use Plan” designates the site for “Public/Institutional” and “Rural Density Residential” uses. These future land use designations are defined as follows:

Public/Institutional – “Government offices, schools, libraries, churches, cemeteries, fairgrounds, maintenance areas, etc.”

Rural Density Residential – “Low density residential uses of up to one dwelling unit per acre.”

- B. The following passage from the Public Facilities element relates to the applications:

Private schools, primarily in conjunction with religious institutions, ease part of the pressure placed on public schools as new residents come into the county. As the county continues to grow, new private schools can be expected to emerge and should be encouraged as long as they meet or surpass the standards of public schools. Currently, several private or parochial schools exist in Boone County (Private Schools, pg. 80):

- St. Paul School - U.S. 25 (Dixie Highway) Florence; Enrollment: 260 (PS-8).
- Mary, Queen of Heaven Elementary - Donaldson Road at Turfway Road; Enrollment: 170 (K-8).
- Immaculate Heart of Mary School - KY 18; Enrollment: 507 (PS-8).
- St. Joseph Academy - Needmore Street, Walton; Enrollment: 145 (PS-8).
- Heritage Academy - U.S. 42, Florence; Enrollment: 140 (PS-12).
- St. Henry District High School - Donaldson Rd; Enrollment: 537 (9-12).
- Assumption Academy - Beaver Road; Enrollment: 95 (6-12).
- Our Lady of the Sacred Heart Academy - Beaver Road; Enrollment: 122 (K-7).
- St. Timothy School - US 42 & Frogtown Road; Enrollment: 170 (K-8).
- Union Pointe Academy - KY 18; Enrollment: 64 (1-12).

- C. The Land Use Element contains the following passages that relate to the requests:

1. Developments in Boone County must recognize the potential impacts of associated traffic on adjoining properties and transportation systems. The need exists to protect the capacity of the existing roadway network and to plan improvements to accommodate new development and travel patterns. Access management provisions include the coordination of curb cuts, adequate corner clearance and sight distance for access points, adequate spacing between access points, shared access points and parking facilities, provisions for access connections to adjoining properties, and dedication of public right-of-way. In subdividing property, arterial or collector streets should not be used for direct access to lots, rather a system of local streets should feed into the collector and arterial street system. Connections between and within commercial and industrial developments allow for more efficient provision of transit service. In addition,

the amount of travel time saved for services relying on routing (such as school buses, waste collection, mail, and other delivery services) is invaluable, not to mention the importance of simply connecting neighborhoods and people to each other. More importantly, the connectivity between developments promotes safety as emergency response vehicles have multiple ways of gaining access to a property during an emergency (Future Land Use Development Guidelines, Access Management, pg. 96).

2. The area breakdowns are provided to allow for ease of use in finding text for specific areas of the county. The Future Land Use boundaries are intended to be approximate and subject to refinement and interpretation by the Planning Commission and county legislative bodies. It is important to consult the Land Use Element text to learn of timing or phasing issues that may be present in a particular area. The Future Land Use Map may indicate future land uses for a particular area, however, the area may not be ready for development until certain infrastructure is in place or another area develops first. It is critical to note that the Future Land Use Map is a projection to the year 2040, and is not necessarily intended to commit areas to development immediately. In some areas, phasing may be used to make sure development is supported by infrastructure, and in others, development may be delayed until planned infrastructure is provided (Description and Purpose of Land Use Maps, pg. 99).
  3. The area south of I-71 and west of I-75 to Stephenson Mill Road is suitable for light industrial development. Access to this industrial area should connect to Beaver Road and Stephenson Mill Road. Urban Density Residential is appropriate to act as a transition between the Suburban Residential and Industrial uses along Stephenson Mill Road. However, before these areas develop, improvements to Stephenson Mill Road and Beaver Road will be necessary. In addition, improvements to the intersection of these two roads and the interstate will be necessary. Suburban Residential will be appropriate to the west along Stephenson Mill Road if utilities are extended into this area. Commercial development of the northwest quadrant of the Mary Grubbs interchange should be of a type to serve the adjoining industrial area, while the southwest quadrant of the interchange will continue to be dominated by the Flying J development. However, traffic circulation improvements are needed at this specific location. There should be no further development of commercial uses oriented to truck traffic. The remaining area in this section should be Rural Density Residential or agricultural in nature (Walton Future Land Use Geographic Area, pg. 145).
- D. The following Our Boone County – Plan 2040 Goals and Objectives apply to these applications:
1. Land uses and zoning decisions shall strive to balance the rights of landowners with the rights of neighbors and the community (Overall Goal A, Objective 4).
  2. Development policies shall not discriminate against any person (Demographics Goal A, Objective 1).
  3. Development shall attempt to utilize existing topography and vegetation (including mature trees where possible) and preserve the existing character of the land where practical (Environment, Goal A, Objective 7).

4. Public facilities and services shall be in locations that are accessible to the population being served (Public Facilities, Goal A, Objective 7).
5. The education system shall provide a broad range of lifetime learning opportunities, as well as both private and public educational facilities and services (Public Facilities, Goal A, Objective 12).
6. Priority shall be given towards maintaining, protecting, and improving the capacity and safety of the existing road system across jurisdictions (Transportation, Objective 1).
7. The local transportation system in Boone County shall be maintained and improved to enhance the overall safety and level of service (Transportation, Goal B).
8. Traffic impact analysis should be used as a tool to address impacts to the existing transportation system (Transportation, Goal C, Objective 3).

#### RELATIONSHIP TO THE BOONE COUNTY TRANSPORTATION PLAN

The Boone County Transportation Plan identified the Mary Grubbs Highway/I-75 Interchange Study and road improvements as Tier I and Tier II improvements. Road design is currently scheduled in 2024.

#### STAFF COMMENTS

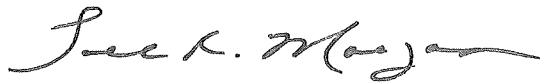
- A. The properties that are part of the zone change application are currently located in Unincorporated Boone County. Staff contacted the City Clerk and verified the owner has filed an intent to annex these properties into the City of Walton.
- B. A Traffic Impact Study was submitted on September 19, 2022 and Staff has included the executive summary, introduction, scope of work, existing areas conditions, proposed site development, traffic analysis, findings, and recommendations sections of the report as an attachment to the Staff Report.
- C. Staff sent out an agency memo and received comments back from Boone County Building Department, Boone County Public Works, and Kentucky Transportation Cabinet. These emails are attached to the Staff Report. Kentucky Transportation Cabinet acknowledged they received a Traffic Impact Study on September 19, 2022 and were about to start their review.
- D. The church/school campus will have four access points on Beaver Road if Skyway Drive is vacated. Typically, 1,500 feet of road frontage would be required to allow four access points. The Zoning Administrator has indicated that he would approve a Waiver if Kentucky Transportation approves all four access points.
- E. Staff would like the applicant's team to address the following:

1. Building elevations were not submitted. Will the architecture of the building correlate to the church?
  2. Would the auditorium be sized to seat all the students? Staff's understanding is the maximum school enrollment would be 360 students and the auditorium could seat up to 312 people.
  3. Will any school activities occur in the church building after the school building is constructed?
  4. Will the athletic field be lit?
  5. Can the use of the athletic field, fieldhouse, and barn be explained? The parking area near the fieldhouse and barn may need to be upgraded to a hard surfaced lot that is handicapped accessible.
  6. Can the church use of the four remaining houses be explained?
  7. Can an overview of the Traffic Impact Study be provided? Has Kentucky Transportation Cabinet provided any preliminary comments?
  8. Would school busses transport any students?
  9. Does a daycare currently operate out of the church or could one be proposed in the future? If so, how many children could be cared for?
  10. Can the main access point for the school be shifted westwards so it aligns with the residential access point across Beaver Road (it's understood that Kentucky Transportation Cabinet will make the final decision).
  11. The school drop off circulation plan shows vehicles traveling in a counter-clockwise motion. Can this be changed to a clockwise motion to eliminate a choke point?
  12. Could the public sidewalks on Beaver Road be extended the full length of the church school campus?
  13. A stage was built in the front parking lot without Permits? Will it remain?
  14. How many students are currently enrolled at Our Lady of the Sacred Heart Academy across the street. What is the maximum enrollment of that school?
- E. Staff recommends that a consolidation plat should be required if the request is approved. Two of the remaining house lots will be not have legal road frontage if Skyway Drive is vacated.

CONCLUSION

- A. The request for the proposed zoning map amendment needs to be evaluated by the Boone County Planning Commission, City of Walton, and Boone County Fiscal Court in terms of Kentucky Revised Statute (KRS) 100.213, Article 3 of the Boone County Zoning Regulations, and the potential impacts on existing and planned uses in the area. The Future Land Use Map will need to be amended if the requests are approved.

Respectfully submitted,



Todd K. Morgan, AICP  
Senior Planner

TKM/ss

Attachments:

- \*Applications
- \*Site Vicinity Map
- \*2022 Concept Development Plans
- \*9/19/22 Traffic Impact Study (does not include appendices)
- \*2011 Concept Development Plan and Conditions of Approval
- \*Zoning Map
- \*2040 Future Land Use Map
- \*Topographical Map
- \*2022 Aerial Map
- \*9/12/22 Email from Jerry Noran
- \*9/20/22 Email from Linzy Brefeld
- \*9/26/22 Email from Robert Franxman

\$1,700.00 Flat Fee  
\$250.00 Notification Fee  
\$66.00 CLUR fee  
\$136.70 Acreage Fee  
(9.113 acres x \$15.00)  
  
\$2,152.70 Total

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BOONE COUNTY PLANNING COMMISSION**

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86959  
SEP 06 2022  
BOONE COUNTY  
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Seven (7) copies of submitted drawings are required

An application consists of all fees paid in full, submitted drawings, and a completed application form

**SECTION A:** (To be completed by applicant)

- Name of Project: Our Lady of the Assumption Boys Academy
- Location of Project: 472 Beaver Road, Walton, KY
- Total Acreage of Project: Acreage in SR-1 zone = 9.113 (Total project acreage = 22.9091)
- Current Zoning of Property: SR-1
- Proposed Zoning of Property (classification being requested): PF
- Proposed Use(s) (specify each use):  
K-12 Boys school, parking lot and drop-off loop, athletic field house, storage barn
- Proposed Building Intensities (specify for each building):  
See attached
- Are you applying for any of the following (check all that apply):  
 Conditional Use Permit     Variance
- Current Owner: Our Lady of Good Counsel Church, Jim Brueggemann, Trustee  
and Home Sweet Home Trust, Jim Brueggemann, Trustee  
Address: 13469 Poole Road  
Verona KY 41092  
City State Zip Code  
Phone Number: 859-485-3261 Fax Number: \_\_\_\_\_  
Email: jimb@bavarianwaste.com
- Applicant: Viox & Viox, Inc.  
Address: 466 Erlanger Road  
Erlanger KY 41018  
City State Zip Code  
Phone Number: 859-727-3293 Fax Number: 859-727-8452  
Email: mdesola@vioxinc.com
- Are there any existing buildings on the site:  Yes     No  
If yes, indicate how many: 6 houses, 3 barns/garages, 3 sheds

12. See Attached  
Deed Book \_\_\_\_\_ Page Number \_\_\_\_\_ Group Number \_\_\_\_\_

13. Have you had a pre-application meeting with the BCPC staff:  Yes  No

14. Have you submitted a Concept Development Plan:  Yes  No

15. Have you met or discussed your proposed development with any of the following organizations/agencies (check all that apply):

- |   |   |
|---|---|
| <input type="checkbox"/> Boone County Building Department   | <input checked="" type="checkbox"/> Local Fire District               |
| <input checked="" type="checkbox"/> Boone County Public Works Department  | <input type="checkbox"/> Local School District                        |
| <input type="checkbox"/> Boone County Water District  | <input type="checkbox"/> Northern Kentucky Health Department          |
| <input checked="" type="checkbox"/> Cincinnati Bell   | <input checked="" type="checkbox"/> Owen Cooperative Electric, Inc.   |
| <input type="checkbox"/> Cincinnati/Northern Kentucky International Airport (Kentucky Airport Zoning Commission for height restrictions near the airport) | <input type="checkbox"/> Sanitation District No. 1                    |
| <input checked="" type="checkbox"/> Duke Energy   | <input type="checkbox"/> USDA NRCS/Boone County Conservation District |
| <input type="checkbox"/> Florence Public Services Department  | <input checked="" type="checkbox"/> Other: <u>City of Walton</u>      |
| <input type="checkbox"/> Kentucky Division of Water   |   |
| <input checked="" type="checkbox"/> Kentucky Transportation Cabinet   |   |

16. Concept Development Plan Jurisdiction/Location (check all that apply):  
 Unincorporated Boone  Florence  Walton  Union

**Note: The City of Walton has filed an Intent to Annex this property.**

17. Waiver of 60 Day Time Requirement by Originator for Final Planning Commission Action:

In accordance with the provisions of KRS 100.211, the applicant(s) and property owner(s) or originator(s) hereby waive the 60 day time limit for the Boone County Planning Commission to take final action on my (our) Zoning Map Amendment/Concept Development Plan application. This time limit waiver is considered effective immediately upon receipt by the Boone County Planning Commission and expires on 11/18/22

ORIGINAL Property Owner's Signature: Jim Brueggemann Trustee  
(Faxed, Photocopied or Scanned Signatures will NOT be Accepted)

ORIGINAL Applicant's Signature: Wyle  
(Faxed, Photocopied or Scanned Signatures will NOT be Accepted)

\$1,700.00 Flat Fee  
\$206.94 Acreage Fee  
(13.7961 acres x \$15.00)  
\$1,906.94 Total

**CONCEPT DEVELOPMENT PLAN  
BOONE COUNTY PLANNING COMMISSION**

A I  
80959  
SEP 06 2022

BOONE COUNTY  
PLANNING COMMISSION

Seven (7) copies of submitted drawings are required

An application consists of all fees paid in full, submitted drawings, and a completed application form

**SECTION A: (To be completed by applicant)**

1. Type of review (check one):
  - Concept Development Plan (includes Utilization of an Underlying Zone in a Planned Development)
  - Change in an Approved Concept Development Plan
  - Long Range Planning Committee Review (as stated in the Houston-Donaldson Study)
  - Long Range Planning Committee Review (as stated in the Union Town Plan)
  - Zone Change Committee Review of previously approved Concept Development Plan Conditions or Zoning Map Amendment Conditions
  - Zoning Administrator Review (as stated in the Central Florence Strategic Plan, An Update of the Parkway Corridor Study)
  - Zoning Administrator Review (as stated in the Mall Road District Study)
  - Zoning Administrator Review (as stated in the I-275/Graves Road Interchange Study)
2. Name of Project: Our Lady of the Assumption Boys Academy
3. Location of Project: 472 Beaver Road, Walton, KY
4. Total Acreage of Project: Acreage in PF zone = 13.7961 acres (Total project acreage = 22.9091 acres)
5. Current Zoning of Property: PF/CD
6. Date of previous zoning map amendment or Approved Concept Development Plan (if applicable):  
2008 (church)
7. Is the site subject to a specialized Land Use Study approved by the Boone County Planning Commission  Yes  No  
If yes, indicate the name of the study: \_\_\_\_\_
8. Proposed Use(s) (specify each use):  
K-12 Boys school, parking lot and drop-off loop, athletic field house, storage barn
9. Proposed Building Intensities (specify for each building):  
See attached
10. Have you submitted a Concept Development Plan:  Yes  No
11. Are you applying for any of the following (check all that apply):  
 Conditional Use Permit  Variance
12. Current Owner: Our Lady of Good Counsel Church, Jim Brueggemann, Trustee  
Address: 13469 Poole Road  
Verona KY 41092  
City State Zip Code  
Phone Number: 859-485-3261 Fax Number: \_\_\_\_\_  
Email: jimb@bavarianwaste.com
13. Applicant: Viox & Viox, Inc.

Address: 466 Erlanger Road

Erlanger KY 41018  
City State Zip Code

Phone Number: 859-727-3293 Fax Number: 859-727-8452

Email: mdesola@vioxinc.com

14. Are there any existing buildings on the site:  Yes  No  
If yes, indicate how many: 2 buildings (one church and one outbuilding)

15. 851 61 2077A  
Deed Book Page Number Group Number

16. Have you had a pre-application meeting with the BCPC staff:  Yes  No

17. Have you met or discussed your proposed development with any of the following organizations/agencies (check all that apply):

Prior to construction of improvements, the applicant is recommended to submit copies of the Site Plan to the appropriate organizations/agencies prior to approval by the Boone County Planning Commission.

- |   |   |
|---|---|
| <input type="checkbox"/> Boone County Building Department   | <input checked="" type="checkbox"/> Local Fire District               |
| <input checked="" type="checkbox"/> Boone County Public Works Department  | <input type="checkbox"/> Local School District                        |
| <input type="checkbox"/> Boone County Water District  | <input type="checkbox"/> Northern Kentucky Health Department          |
| <input checked="" type="checkbox"/> Cincinnati Bell   | <input checked="" type="checkbox"/> Owen Cooperative Electric, Inc.   |
| <input type="checkbox"/> Cincinnati/Northern Kentucky International Airport (Kentucky Airport Zoning Commission for height restrictions near the airport) | <input type="checkbox"/> Sanitation District No. 1                    |
| <input checked="" type="checkbox"/> Duke Energy   | <input type="checkbox"/> USDA NRCS/Boone County Conservation District |
| <input type="checkbox"/> Florence Public Services Department  | <input checked="" type="checkbox"/> Other: <u>City of Walton</u>      |
| <input type="checkbox"/> Kentucky Division of Water   |   |
| <input checked="" type="checkbox"/> Kentucky Transportation Cabinet   |   |

18. Concept Development Plan Jurisdiction/Location (check all that apply):  
 Unincorporated Boone  Florence  Walton  Union

19. Waiver of 60 Day Time Requirement by Originator for Final Planning Commission Action:

In accordance with the provisions of KRS 100.211, the applicant(s) and property owner(s) or originator(s) hereby waive the 60 day time limit for the Boone County Planning Commission to take final action on my (our) Zoning Map Amendment/Concept Development Plan application. This time limit waiver is considered effective immediately upon receipt by the Boone County Planning Commission and expires on 11/18/22

ORIGINAL Property Owner's Signature: Jim Brueggemann Trustee  
(Faxed, Photocopied or Scanned Signatures will NOT be Accepted)

ORIGINAL Applicant's Signature: [Signature]  
(Faxed, Photocopied or Scanned Signatures will NOT be Accepted)

Our Lady of the Assumption Boys Academy  
Zoning Map Amendment

7. Proposed Building Intensities:

**Boys School:**

The proposed school will consist of two floors - a main level and a lower level that overlap each other. The bottom floor contains the gym and cafeteria and would be built into the hillside, so the overall footprint is approximately 45,500 s.f. including a future auditorium and future classrooms.

The square footage breakdown per floor is as follows:

- Main floor = approx. 25,300 s.f. (if future two classrooms added, becomes approx. 28,000 s.f.)
- Lower level = approx. 33,600 s.f. (if future one classroom added, becomes approx. 35,000 s.f.)

\*63,000 s.f. building/45,500 s.f. land = 1.38 FAR

\*The total square footage of school building included in the SR-1 zone (as part of the Zoning Map Amendment application) is approximately 41,000 sf.

**Recreation Building (at bottom of hill):**

The proposed recreation building will consist of two floors. The square footage breakdown per floor is as follows:

- Main floor = approx. 11,200 s.f.
- Mezzanine level = 3,400 s.f.

\*\*14,600 s.f. building/11,200 s.f. land = 1.30 FAR

\*\*The total square footage of the recreation building included in the SR-1 zone (as part of the Zoning Map Amendment application) is approximately 9,500 s.f.

**Barn/Storage:**

The proposed barn/storage facility will consist of one level = 1,920 s.f.

\*\*\*1,920 s.f. building/1,920 s.f. land = 1 FAR

\*\*\* The total square footage of the barn/storage building included in the SR-1 zone (as part of the Zoning Map Amendment application) is approximately 960 s.f.

Zoning Map Amendment  
Our Lady of the Assumption Boys Academy

12.	Deed Book	Page Number	Group Number
-----	-----------	-------------	--------------

(All lots part of Sturgeon & Woods Subdivision in **Group Number 851**)

438 Beaver Road (Lot 5 & Part of Lot 6) = DB 943 / PN 270

430 Beaver Road (Lot 4) = DB 982 / PN 25

11991 Skyway Drive (Lot 3) = DB 1080 / PN 18

11977 Skyway Drive = DB 1178 / PN 794

11972 Skyway Drive (Lots 8 & 9) = DB 1126 / PN 19

11982 Skyway Drive (Lot 10) = DB 1181 / PN 399

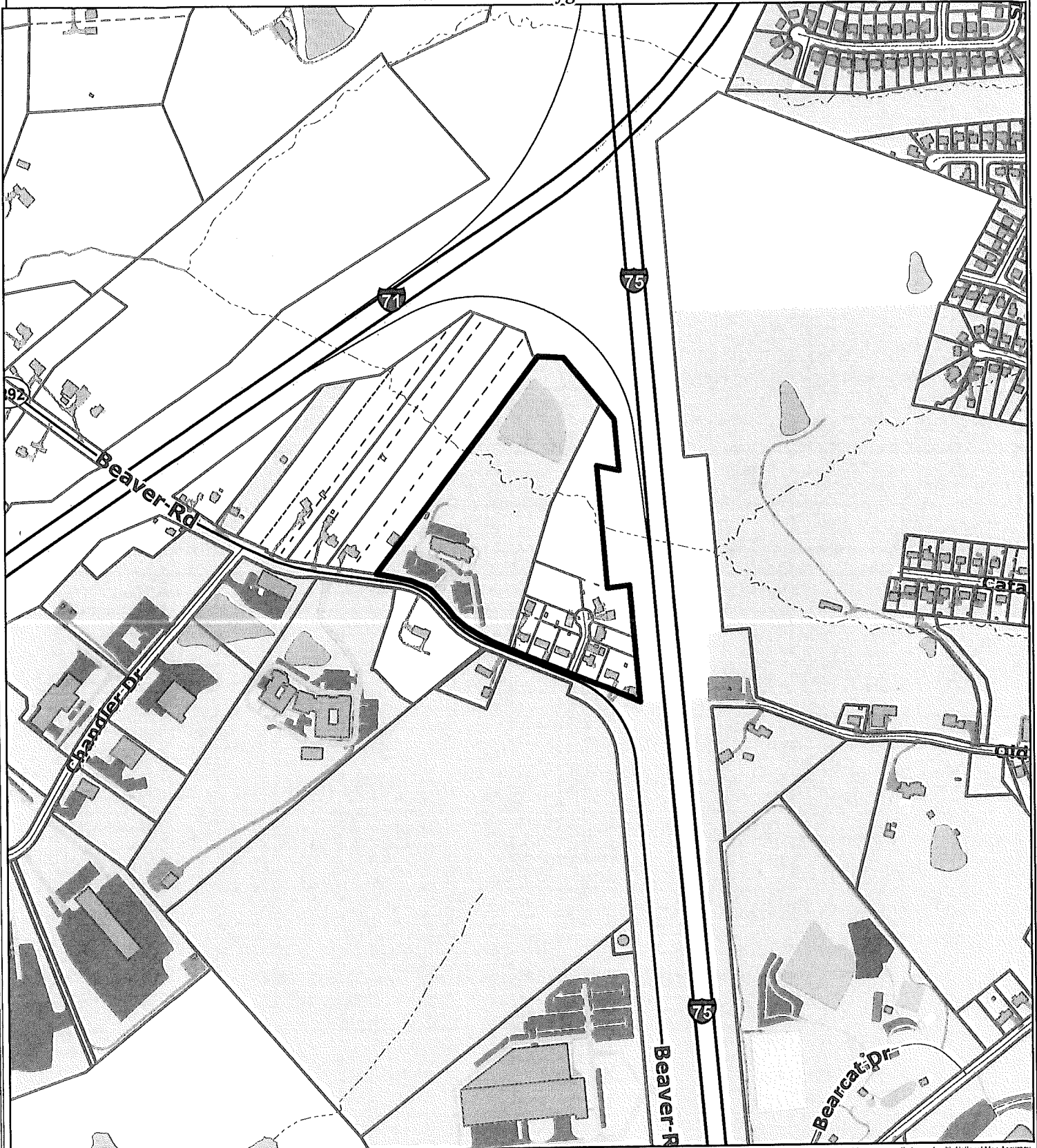
11990 Skyway Drive (Lot 2) = DB 1182 / PN 238

404 Beaver Road (Lot 1) = DB 1182 / PN 234

Skyway Drive (Lot 7) = DB 1126/PN 22

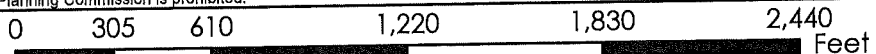
# SITE VICINITY MAP

www.boonecountygis.com



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Data used to create this map were compiled from sources that comply with National Map Accuracy Standards. Boone County GIS extends no warranty with respect to the accuracy or content of the information provided by this map. This map should be used for general planning purposes only.



1 inch = 600 feet



**Boone County GIS - Putting Northern Kentucky on the Map**

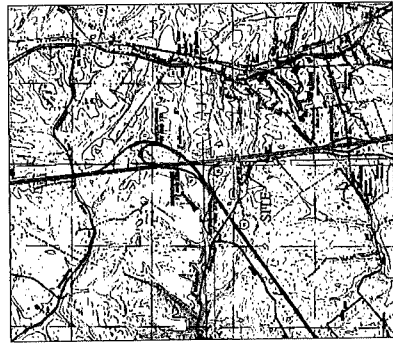


Map Created: 2/12/2020

Map File: C:\Users\j... ArcMap Document: \*.mxd

# Our Lady of Assumption Concept Plan

472 Beaver Road Walton, Kentucky 41094



**R E C E I V E D**  
SEP 06 2022  
BOONE COUNTY  
PLANNING COMMISSION

**SITE DATA**  
Site Location: 472 BEAVER ROAD  
Site Area: 2.52 Acres  
Total Area: 1.46 Acres (2.52 Acres)  
OWNER: OUR LADY OF ASSUMPTION COUNCIL CHURCH  
VERONA, KY 40389  
Current Use: CHURCH & SCHOOL  
Parcel ID: 077230-00-002-02  
077230-00-002-03  
077230-00-002-04  
077230-00-002-05  
Current Zoning: SRA-1 (R-172)

**PARKING SUMMARY**  
Proposed: 80 Spaces  
2 spaces for visitors  
1 space for 8 people in neighborhood  
Total: 88 Spaces  
Duration: Parking: 120 hours  
Proposed: 80 Spaces

**TOTAL SPACES PROVIDED = 88 SPACES**

**SITE ZONING DATA**  
Minimum Lot Size: 1.00 Acre  
Minimum Front Setback: 25 FT  
Minimum Side Setback: 25 FT  
Minimum Rear Setback: 25 FT  
Minimum Overall Lot Width: 120 FT  
Minimum Overall Lot Depth: 120 FT  
Minimum Overall Lot Area: 14,400 SQ FT  
Minimum Overall Lot Volume: 1,728,000 CU FT  
Minimum Overall Lot Height: 120 FT  
Minimum Overall Lot Slope: 5%  
Minimum Overall Lot Gradient: 5%  
Minimum Overall Lot Elevation: 50 FT  
Minimum Overall Lot Contour: 50 FT (before proposed 50 FT), 50 FT (before 50 FT)

**NOTE:**  
IT SHALL BE THE FULL AND COMPLETE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN ALL NECESSARY PERMITS FROM THE APPROPRIATE AGENCIES AND ESTABLISHED BY CSMA OR ANY OTHER REGULATORY BODY. THE OWNER AND ENGINEERS WILL NOT PERFORM ANY SAFETY COMPLIANCE INSPECTION FOR PERFORMING SUCH INSPECTIONS FOR COMPLIANCE TO THE REGULATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS, INCLUDING ATTORNEY'S FEES, ARISING OUT OF ANY SAFETY VIOLATION BY CSMA OR ANY OTHER REGULATORY BODY, AS A RESULT OF THE CONTRACTOR'S WORK.

Location of utilities and structures, both surface and subsurface, are shown on the plans from data available at time of bidding, and are not necessarily shown in their actual location. The contractor shall be responsible for locating and protecting all existing utilities and structures whether shown on the plans or not. If damage to any utility or structure is caused by the contractor's work, the contractor shall be responsible for the cost of repair or replacement of same to the satisfaction of the engineer or appropriate authority.  
Prior to any excavation for underground utilities, horizontal and verticality of all existing utilities, any other structures, and any adjacent property, to the engineer and the appropriate authorities.



**PROJECT CONTROL**  
Vertical Control was established by real time kinematic GPS using RTK mode. Horizontal Control was established by real time kinematic GPS using RTK mode. UTM projection used. WGS 84 datum used.

\* ALL SUBMITTALS MAY NOT INCLUDE ENTIRE SET OF DRAWINGS

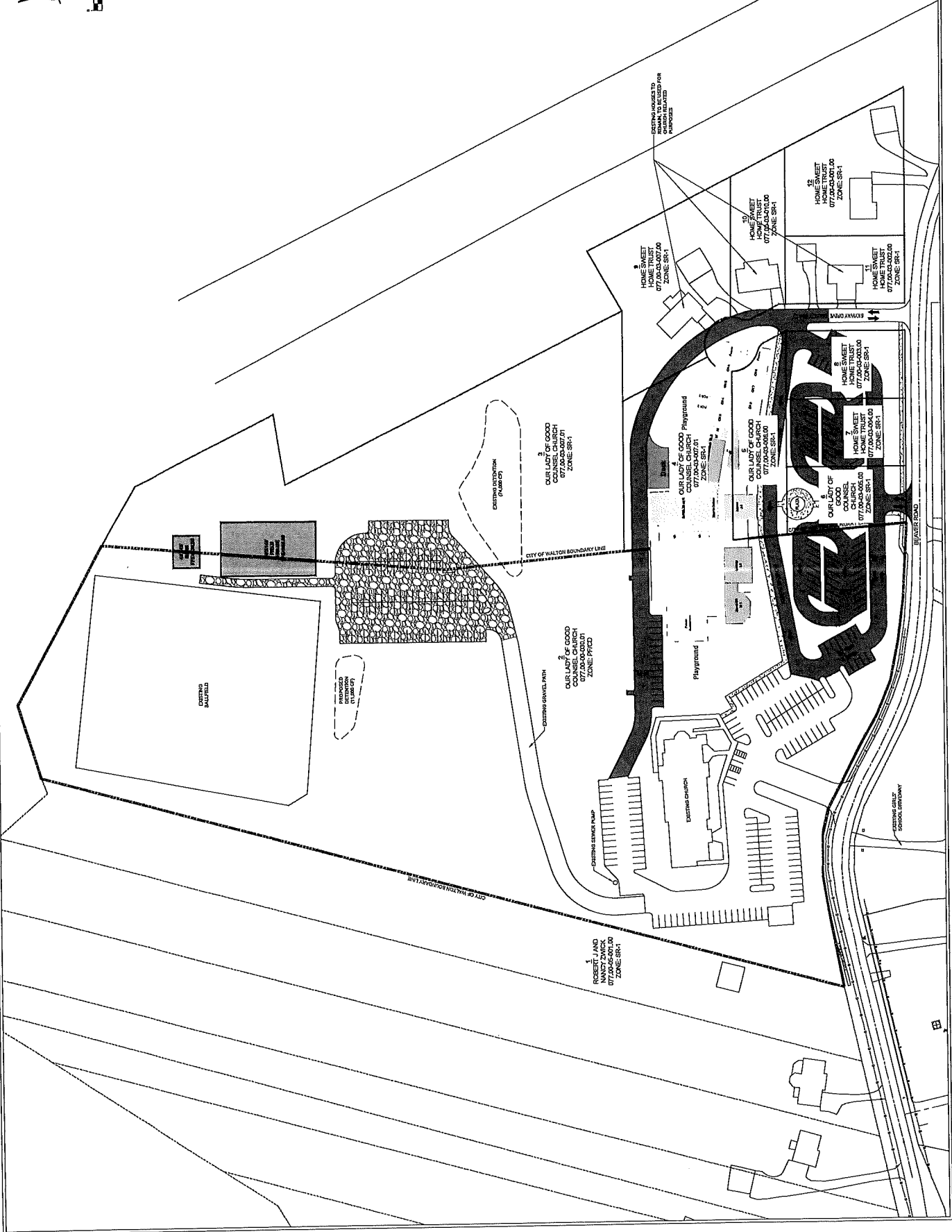
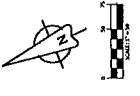
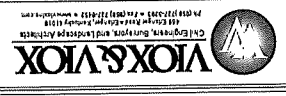
SHEET INDEX	
SHEET NO.	DRAWING TITLE
C-1.0	COVER SHEET
C-2.0	LAYOUT PLAN
C-3.0	GRADING & UTILITY PLAN
C-4.0	VEHICLE CIRCULATION

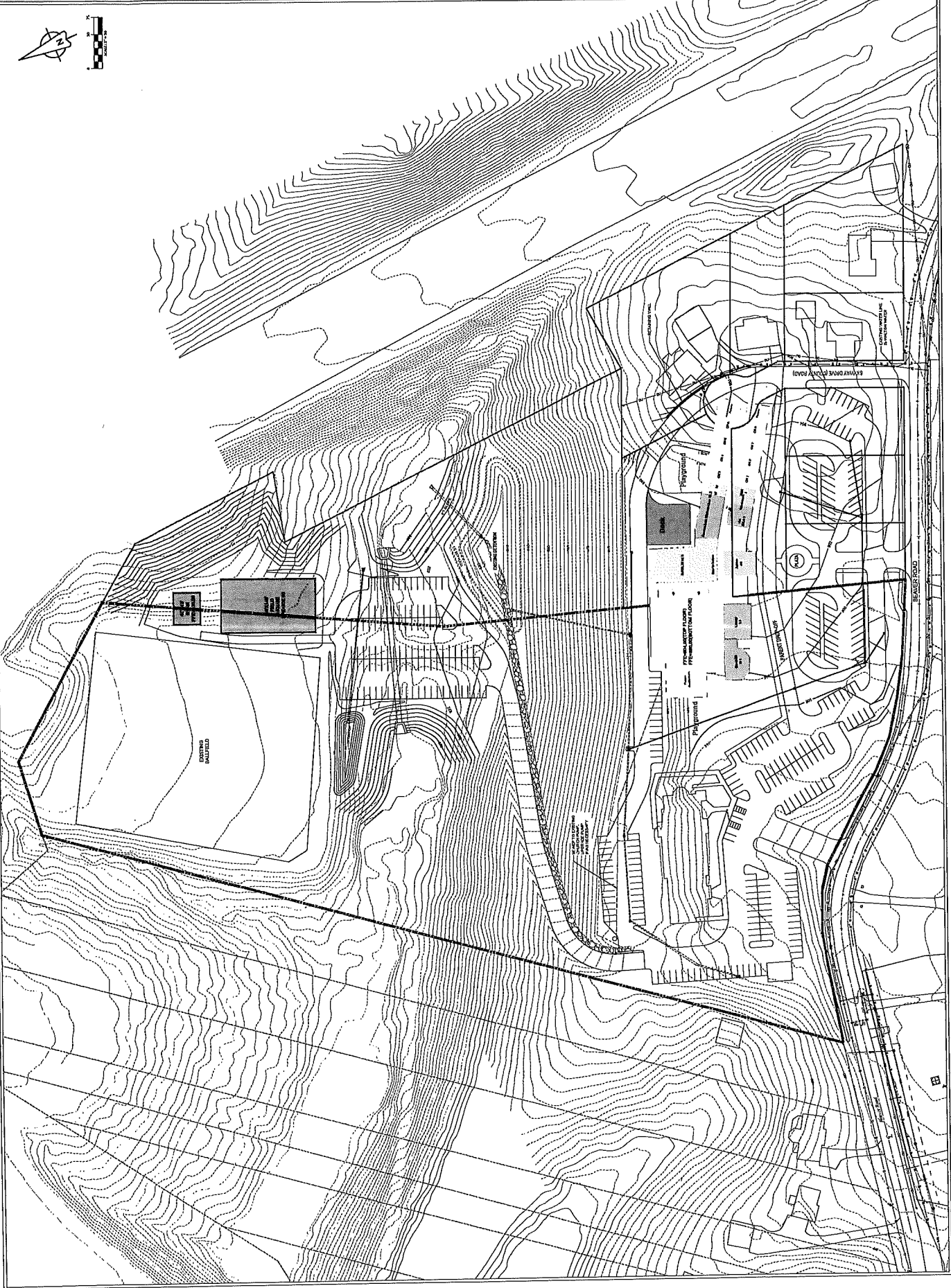


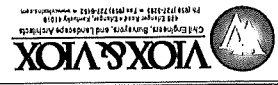
**VIOXX & VIOX**  
Civil Engineers, Surveyors and Landscape Architects  
144 Kaysville Pike, Suite 100, Kaysville, UT 84037  
P.O. Box 1234, Kaysville, UT 84037

Date: 8/30/22  
COVER SHEET  
Sheet C-1.0

Our Lady of Assumption - Concept Plan  
472 Beaver Road  
Walton, Kentucky 41094  
Our Lady of the Assumption Church

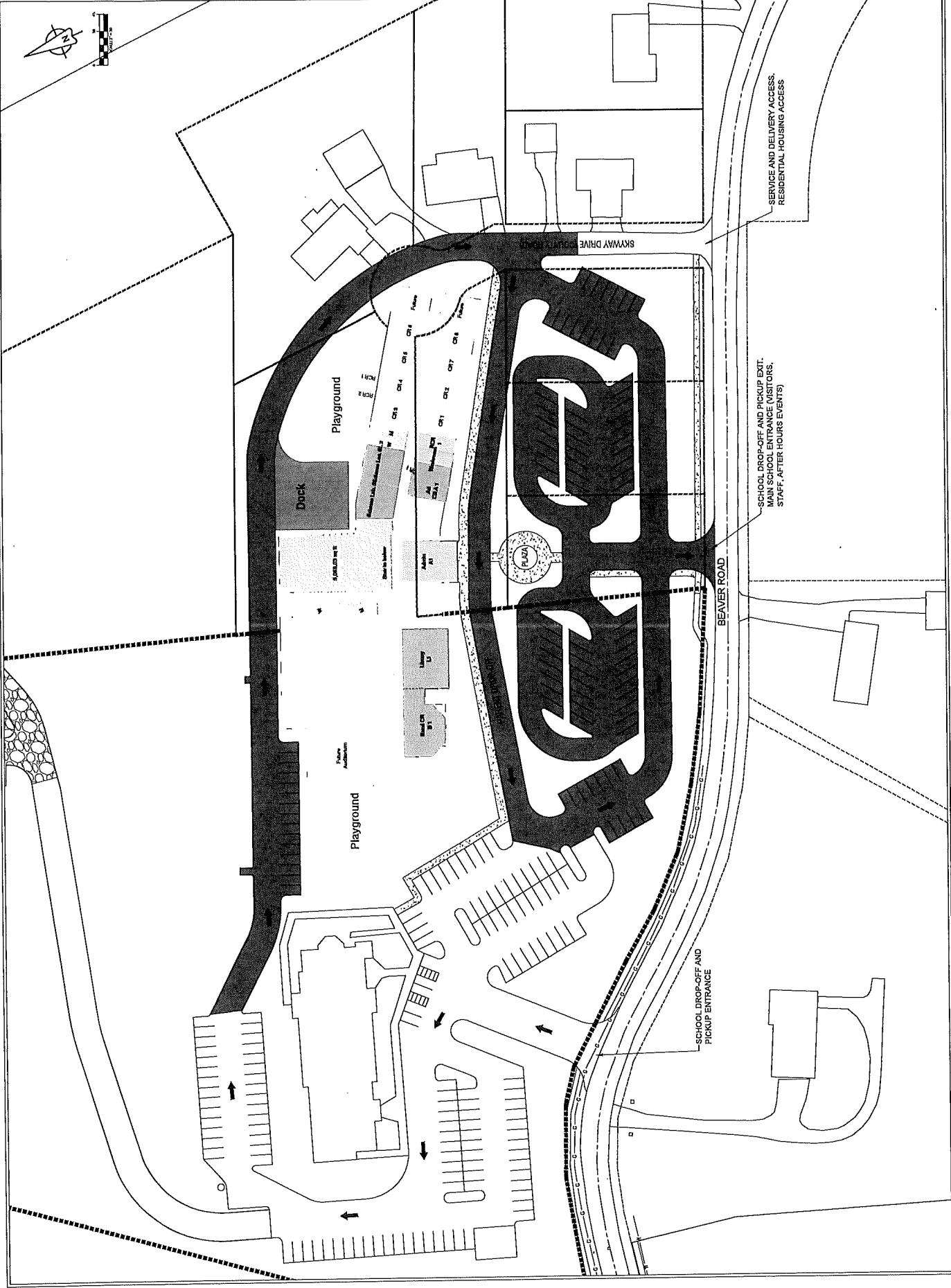






VIOX & VIOX  
 Civil Engineers, Surveyors, and Landscape Architects  
 10191 Preston - The Highlands - Louisville, KY 40225  
 502.438.8888

Our Lady of Assumption - Concept Plan  
 472 Beaver Road  
 Our Lady of the Assumption Church  
 Walton, Kentucky 41094



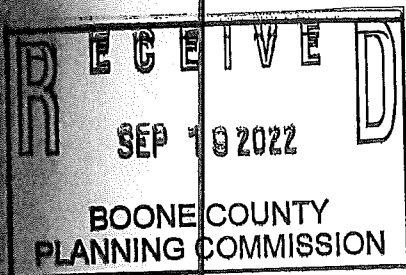
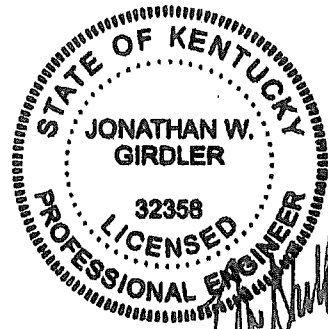
# PRIVATE (K-12) SCHOOL ADDITION TRAFFIC IMPACT STUDY

**Beaver Road (KY-1292) and Private Driveway  
City of Walton, Boone County, Kentucky**



**Prepared for:**

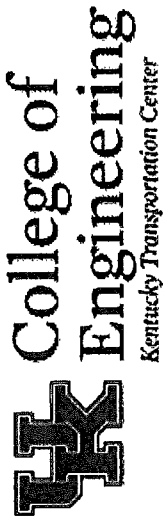
**Robert Ehmet Hayes & Associates**  
2512 Dixie Highway  
Fort Mitchell, Kentucky 41017



**VIOX & VIOX**

Civil Engineers, Surveyors, and Landscape Architects  
466 Erlanger Road • Erlanger, Kentucky 41018  
Ph (859) 727-3293 • Fax (859) 727-8452 • www.vioxinc.com

**Prepared By: Jon Girdler, PE**  
**Date: September 19, 2022**



**TECHNOLOGY  
TRANSFER  
PROGRAM**

**TRAFFIC IMPACT STUDY COURSE  
Certificate of Completion (3.5 PDH)**

**Jon Girdler**

**KY PE License No. 32358**

**Completed: 05/13/2022**

**Expires: 05/13/2026**

**Company: University of Kentucky**

**TIM THARPE**

**Tim Tharpe, KYTC**

**Director of Traffic Operations**

**Adam Kirk, Instructor**

**The official status of this certificate can be verified with the  
KYTC Division of Traffic Operations**

## TABLE OF CONTENTS

1. EXECUTIVE SUMMARY.....	1
2. INTRODUCTION.....	2
3. SCOPE OF WORK.....	3
4. EXISTING AREA CONDITIONS .....	5
5. PROPOSED SITE DEVELOPMENT .....	6
6. TRAFFIC ANALYSIS.....	7
<i>Capacity Analysis</i> .....	7
<i>Mary Grubbs Hwy/Stephenson Mill Road &amp; Beaver Road/Walton-Verona Road</i> .....	8
<i>Mary Grubbs Hwy &amp; I-75 SB Off-Ramp</i> .....	10
<i>Mary Grubbs Hwy &amp; I-75 NB Off-Ramp</i> .....	12
<i>Beaver Road &amp; Existing Access Driveway</i> .....	14
<i>Beaver Road &amp; Proposed Access Driveway</i> .....	16
7. FINDINGS .....	19
<i>95<sup>th</sup> Percentile Queue Lengths</i> .....	20
8. RECOMMENDATIONS.....	23

## FIGURES

**Figure 1 – Development Site Location Map**

## TABLES

Table 1. Estimated New Site Trips (2024 – Full Build) .....	6
Table 2. Unsignalized Intersection LOS Criteria.....	7
Table 3. Signalized Intersection LOS Criteria.....	7
Table 4. Mary Grubbs/Beaver/Stephenson Mill/Walton-Verona – AM LOS/Delay (seconds/vehicle) .....	8
Table 5. Mary Grubbs/Beaver/Stephenson Mill/Walton-Verona – PM LOS/Delay (seconds/vehicle).....	9
Table 6. Mary Grubbs & I-75 SB Off-Ramp - AM LOS/Delay (seconds/vehicle) .....	10
Table 7. Mary Grubbs & I-75 SB Off-Ramp - PM LOS/Delay (seconds/vehicle).....	11
Table 8. Mary Grubbs & I-75 NB Off-Ramp - AM LOS/Delay (seconds/vehicle).....	12
Table 9. Mary Grubbs & I-75 NB Off-Ramp - PM LOS/Delay (seconds/vehicle) .....	13
Table 10. Beaver Road & Existing Access Driveway - AM LOS/Delay (seconds/vehicle).....	14
Table 11. Beaver Road & Existing Access Driveway - PM LOS/Delay (seconds/vehicle) .....	15
Table 12. Beaver Road & Proposed Access Driveway - AM LOS/Delay (seconds/vehicle) .....	16
Table 13. Beaver Road & Proposed Access Driveway - PM LOS/Delay (seconds/vehicle).....	17
Table 14. Turn Lane Warrant Summary – Beaver Road & Existing Access Driveway .....	18
Table 15. Turn Lane Warrant Summary - Beaver Road & Proposed Access Driveway .....	18
Table 16. 95 <sup>th</sup> Percentile Queue Lengths (feet) – Mary Grubbs/Stephenson Mill/Beaver/Walton-Verona.....	20
Table 17. 95 <sup>th</sup> Percentile Queue Lengths (feet) – Mary Grubbs & I-75 SB Off-Ramp .....	21
Table 18. 95 <sup>th</sup> Percentile Queue Lengths (feet) – Mary Grubbs & I-75 NB Off-Ramp.....	22

## **APPENDICES**

- A. Site Concept Plan**
  - B. ITE Trip Generation Rates, Plots and Equations & Turning Movement Exhibits**
  - C. Synchro Analyses**
  - D. Turn Lane Warrants**
  - E. Historic Traffic Data & Speed Study Data**
-

# 1. EXECUTIVE SUMMARY

The following provides an overview of the report and its recommendations related to the proposed private school development (Grades K-12, known as Our Lady of Assumption) in the City of Walton, Boone County, Kentucky. The Full Build condition is proposed to accommodate 360 students, which consists of 15 classrooms in the new building. The anticipated Full Build year is 2024.

The following conclusions are outlined below to mitigate any effects that the development will have on the surrounding roadways:

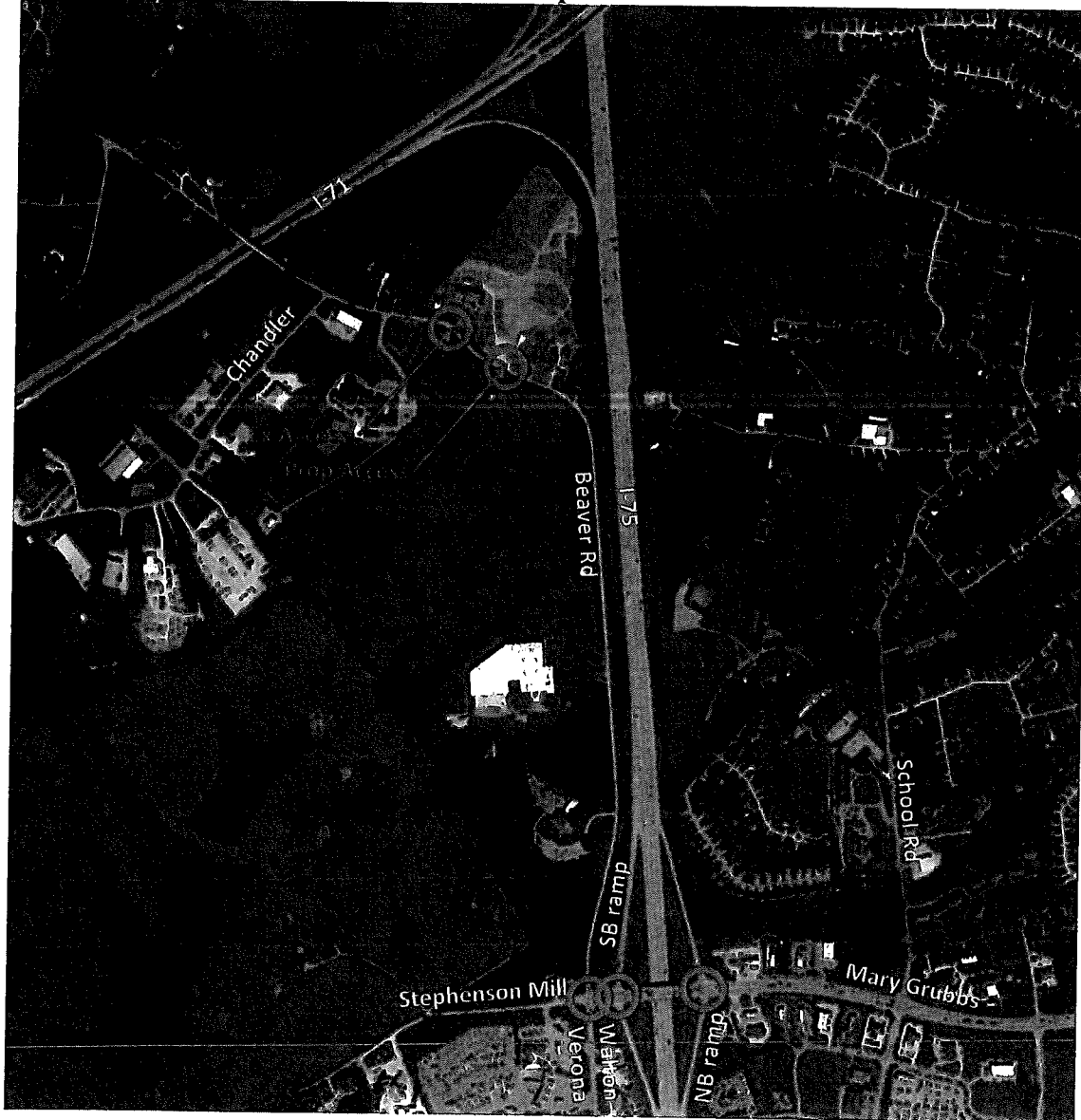
1. Exclusive turn lanes are not required for the existing church access and proposed driveways on Beaver Road. The turn lane warrants were completed for the 2034 post-Full Build scenarios. Since turn lanes were not warranted for the 2034 scenarios, turn lanes were not required for the previous scenarios.
2. It should be noted that, separate from this study, the KYTC is conducting an interchange study at the writing of this report. The study is evaluating potential modifications that can be made to the interchange that might improve the queuing and delay challenges experienced during the AM and PM peak hours. Results from the study are not expected to be available until the end of 2022.

## 2. INTRODUCTION

As requested by Robert Ehmet Hayes and Associates and per KYTC standards and regulations, this Traffic Impact Study (TIS) was completed to describe and measure the impact of traffic generated by the school on the existing public roadway system and provide a list of conclusions and recommendations required to fully mitigate such impact.

The development is enclosed by I-71 NB to I-75 SB ramp to the north, I-75 to the east, a residential parcel to the west, and Beaver Road to the south. The access points proposed for the development are shown in Figure 1 below. Per the current KYTC TIS guidelines, intersections within 4800 linear feet were evaluated for Base conditions (2022), Open/Full Build and No-Build conditions (2024), and post Full-Build and No-Build conditions (2034). The building will include 15 classrooms, which will accommodate 360 students (K-12). The proposed trip generation is shown in a later section of the report.

**Figure 1 – Development Site Location Map**



### 3. SCOPE OF WORK

Preliminary discussions regarding the TIS scope were held with KYTC District 6. It was determined the scope would include 4 existing intersections and a proposed intersection:

- Mary Grubbs/Walton-Verona Rd (KY-14/16)//Beaver Rd (KY-1292)/Stephenson Mill Rd (signalized, 4-way)
- Mary Grubbs Hwy (KY-14/16)/I-75 SB off- and on-ramps (signalized, 3-way)
- Mary Grubbs Hwy (KY-14/16)/I-75 NB on- and off-ramps (signalized, 3-way)
- Beaver Rd (KY-1292)/existing school driveway (unsignalized, 1-way stop-controlled)
- Beaver Rd (KY-1292)/proposed access driveway (unsignalized, 1-way stop-controlled)

The study area is shown in Figure 1.

The following work tasks were performed as part of this study:

1. **Meeting/discussions with Project Team, KYTC, and/or public agencies** – Discussions and/or meetings were held with the various jurisdictional agencies and interested parties for the purpose of the establishment of details of scope of work and technical traffic engineering analysis methodology.
2. **Existing traffic conditions** – A site reconnaissance was conducted for the purpose of identifying aspects of ingress/egress and important roadway characteristics on the subject roadways. Included in the reconnaissance was traffic lane geometry and utilization, pavement widths, roadway characteristics, posted speed limits, traffic controls, signage, applicable Manual of Uniform Traffic Control Devices standards, and any potential safety issues related to intersection sight distance.

Existing peak hour turning movements were completed by the data collection sub-consultant for the weekday morning (6:00 – 9:00 AM) and evening (3:00- 6:00 PM) time periods at the four existing intersections in May 2022.

The opening year/Full Build year is assumed to be year 2024. Two years of projected growth was added to the existing turning movement counts to serve as the Full Build traffic volumes.

3. **New traffic volumes and distribution of trips** – Trip volumes were estimated for the development's Build scenarios. These trips were calculated by using the Institute of Transportation Engineers (ITE) *Trip Generation Manual, 11<sup>th</sup> Edition*. New trip turning movements for vehicles were assigned to the adjacent street system using demographic information and the existing traffic flow distributions. Truck volumes were documented during the data collection phase.
4. **Turn Lane and Signal Warrant Analysis** - The need for exclusive left- and right-turn lanes was investigated anywhere the volumes might warrant the need.
5. **Projected Year Traffic** – The analysis was completed for existing conditions (2022), all Open/Full Build and No-Build scenarios (2024), and 10 years of projected traffic for the 2034 post No-Build and Full Build scenarios. The No-Build traffic volumes were estimated by applying a regional growth factor to the 2022 traffic volumes. Per KYTC personnel and growth rate calculations derived from KYTC historical traffic count data, the regional growth factor assumed was 1.00% (uncompounded). Refer to Appendix E for the specific KYTC count stations.

6. **Level of Service Analysis** – The study intersections were analyzed for morning and evening peak hour traffic volumes for the Build and No-Build scenarios.
7. **Traffic Impact Study Report** – This report was prepared per KYTC standards and regulations, and describes the methodology used for the traffic analysis. The report includes appropriate traffic engineering analysis, conclusions, and recommendations to fully mitigate any potential adverse traffic impacts. This report fully conforms to the regulations and standards adopted by KYTC.

The final report will be submitted to KYTC, Boone County Planning Commission, and City of Walton for review and approval.

## 4. EXISTING AREA CONDITIONS

Mary Grubbs Highway (KY-14/16) and the other nearby city and county roads are of paramount importance for the surrounding community and the adjacent roadway network in the vicinity of the proposed development. Mary Grubbs Highway is a major thoroughfare critical to the area, which provides access to Walton, Verona, Bracht, and Piner in the immediate vicinity. It provides access to a variety of collector and local roads as well. It is a four-lane divided highway with 2-lanes in each direction and exclusive eastbound and westbound left-turn lanes at intersections and driveways. Mary Grubbs Highway and Walton-Verona Road are classified as major urban collectors, and have posted speed limits of 45 MPH and 35 MPH, respectively. Beaver Road (KY-1292) is a minor urban collector within the study area, with vehicles traveling at an 85<sup>th</sup> percentile speed of 45 MPH, which was determined from a previous speed study. Stephenson Mill Road is a two-lane City of Walton road with a posted speed limit of 35 MPH. The topography of the roads consists of gentle ascents and descents along Mary Grubbs Highway. Stephenson Mill Road is hillier compared to the interchange area. Preliminarily, there appears to be sufficient sight distance (minimum of 500 feet) when looking left and right from the existing church and proposed school driveways. The intersections included for this study are as follows: the intersections Mary Grubbs makes with Beaver Road/Stephenson Mill Road/Walton-Verona Road, I-75 SB on- and off-ramps, and I-75 NB on- and off-ramps.

As previously mentioned, turning movement counts were completed by a data collection sub-consultant at the referenced locations during the weekday morning and afternoon time periods in May 2022. The study focused on the peak hour time periods of 7:15 – 8:15 AM and 4:45 – 5:45 PM. Truck classification counts were also conducted for the approaches at each intersection. The school drop-off time frame occurred during the majority of the AM peak hour. However, the school pick-up time frame was outside of the PM peak hour time period. The truck percentages for each lane group are reported in Appendix C.

It should be noted that there are existing queuing and delay challenges at the Mary Grubbs/I-75 SB off-ramp and Mary Grubbs/Stephenson Mill Road/Beaver Road/Walton-Verona Road intersections. This phenomenon is commonly referred to as bottlenecking. A large volume of trucks frequent this interstate exit because of the truck stop that is located southwest of the Mary Grubbs/Stephenson Mill Road/Beaver Road/Walton-Verona Road intersection. From I-75, truck drivers must travel westbound toward Beaver Road/Walton-Verona Road, then queue to turn left. The I-75 SB ramp and Beaver Road/Walton-Verona Road intersections have approximately 115 feet of storage between them, which is enough room for one semi-truck and two passenger cars. From I-75 SB, a truck must turn right and then make an immediate left. Additionally, this movement can prohibit other vehicles from passing the queued truck. If two trucks were queued to make a WB left at the Beaver Road/Walton-Verona Road intersection, the second truck's trailer would sit in the middle of the I-75 SB ramp intersection. Additionally, trucks that turn right from the I-75 SB off-ramp can block vehicles trying to make a WB right onto Beaver Road because the trailer could occupy both lanes. The same issues are present for traffic coming from the truck stop (NB Walton-Verona Road to EB Mary Grubbs Highway). The traffic coming from Stephenson Mill Road does not have the same queuing challenges since the volume is lower, but the delay can be around 200 seconds for consecutive signal cycles. Because the Beaver Road/Walton-Verona Road intersection is so close to the I-75 SB ramp intersection, the two signals are operated from one signal controller, which requires EB and WB green times to include time for all approaches in the corresponding directions. Currently, there is an ongoing interchange study at this location, which includes the Mary Grubbs Highway/Stephenson Mill Road/Beaver Road/Walton-Verona Road intersection. Preliminary results of the interchange study are expected to be available toward the end of 2022.

## 5. PROPOSED SITE DEVELOPMENT

Currently, the school accommodates approximately 100 students (K-12). Open/Full Build condition will consist of 15 classrooms to accommodate 360 students. Currently, the existing driveway to the church provides access to the school. Two additional driveways are proposed. The proposed driveway immediately east of the existing driveway is to serve as an egress for drop-off/pick-up operations. During all other times, this driveway is to serve as the main entrance to the school. The second driveway that is proposed is the current Skyway Drive. It is anticipated that Skyway Drive will be converted to a private road, which will be the access for service, delivery, and maintenance personnel. It is assumed that the school will be operational by the 2024 school year. The concept plan is included in Appendix A, which shows the Full-Build condition of the development. The new trips are estimated using Institute of Transportation Engineers (ITE) *Trip Generation Manual*, 11<sup>th</sup> Edition. The proposed new trips are summarized in Table 1. The Turning Movement Exhibits (found in Appendix B) show the trips assignments throughout the adjacent roadway network.

**Table 1. Estimated New Site Trips (2024 – Full Build)**

ITE Land Use Code	Land Use Description	Var. (X)	Var. Units	AM Peak Hour			PM Peak Hour		
				Enter	Exit	Total	Enter	Exit	Total
532	Private School (K-12)	360	Students	183	108	<b>291</b>	26	35	<b>61</b>
				63%	37%		43%	57%	
			<i>Unadjusted Volumes</i>	183	108	<b>291</b>	26	35	<b>61</b>
			<i>Internal Capture Trips</i>						
			<b>Total Trips</b>	<b>183</b>	<b>108</b>	<b>291</b>	<b>26</b>	<b>35</b>	<b>61</b>

Again, it should be noted that a portion of the assumed trips include existing trips. In other words, the trips amount to a credit of the total stated in Table 1. Additionally, it should also be noted that the estimated trip generation includes the average number of trips that various private schools generate. Private schools heavily rely on parent drop-offs/pick-ups unless a separate company is contracted to provide transportation. For this school in particular, a larger percentage of students are from the same family compared to other schools. With these two points in mind, the results shown in this study are assumed to be a worst-case scenario.

## 6. TRAFFIC ANALYSIS

### Capacity Analysis

A capacity analysis was performed for the study area intersections as previously indicated. All analysis scenarios were completed using Synchro/SimTraffic software. The capacity of an intersection is quantified by the Level of Service (LOS) which is based upon the amount of delay a vehicle experiences while at a particular intersection. The criterion for signalized and unsignalized intersections is listed below as defined in the Highway Capacity Manual (HCM, 6<sup>th</sup> Edition), Volume 3.

**Table 2. Unsignalized Intersection LOS Criteria**

LOS	Average Control Delay (seconds/vehicle)
A	≤ 10
B	> 10 – 15
C	> 15 – 25
D	> 25 – 35
E	> 35 – 50
F	> 50

**Table 3. Signalized Intersection LOS Criteria**

LOS	Average Control Delay (seconds/vehicle)	General Description
A	≤ 10	Free Flow
B	> 10 - 20	Stable Flow (slight delays)
C	> 20 - 35	Stable Flow (acceptable delays)
D	> 35 - 55	Approaching unstable flow (occasionally wait through more than one cycle)
E	> 55 - 80	Unstable Flow (intolerable delays)
F	> 80	Forced Flow (congested and queues fail to clear)

The following is a list of code definitions that are used in the capacity analysis results:

- EB/WB/NB/SB – Eastbound/Westbound/Northbound/Southbound
- L – Left Turn Movement
- T – Through Movement
- R – Right Turn Movement

The summary of Synchro/SimTraffic analyses completed for all No Build and Build AM and PM scenarios for their respective intersections is included below. The Synchro/SimTraffic output is included in Appendix C.

**Mary Grubbs Hwy/Stephenson Mill Road & Beaver Road/Walton-Verona Road**

The AM and PM analyses completed are shown below in Tables 4 and 5. The average intersection delays of the 2022, 2024, and 2034 AM No Build scenarios are LOS F. The increases/decreases in average intersection delays between the 2024 and 2034 No Build and Build scenarios are -1.1 and 35.9 seconds/vehicle, respectively. The 2034 No Build to Build scenario possesses an average intersection delay increase of approximately 34%.

**Table 4. Mary Grubbs/Beaver/Stephenson Mill/Walton-Verona – AM LOS/Delay (seconds/vehicle)**

Lane Group	EB (Stephenson Mill)			WB (Mary Grubbs)			NB (Walton-Verona)				SB (Beaver)			Int.
	L/T/R	App.	L/T	R	App.	L/T	R		App.	L/T/R		App.		
2022 - Base	F	F	C	D	D	F	F		F	F		F	F	
	99.9	99.9	34.6	50.6	40.9	122.1	130.3		130.0	84.1		84.1	82.2	
2024 - No Build	F	F	D	D	D	F	F		F	F		F	F	
	101.3	101.3	37.0	50.2	42.1	114.6	133.1		132.6	83.3		83.3	83.8	
2034 - No Build	F	F	D	D	D	F	F		F	F		F	F	
	101.2	101.2	37.1	49.1	41.9	144.0	197.9		196.8	87.9		87.9	106.8	
2024 - Build	F	F	D	D	D	F	F		F	F		F	F	
	105.2	105.2	35.4	42.3	38.7	109.3	148.3		146.9	80.3		80.3	82.7	
2034 - Build	F	F	C	D	C	F	F		F	F		F	F	
	133.9	133.9	29.8	37.1	33.5	280.8	331.3		329.0	114.6		114.6	142.7	

The average intersection delays of the 2022, 2024, and 2034 No Build scenarios are LOS E. The increases/decreases in average intersection delays between the 2024 and 2034 No Build and Build scenarios are 5.8 and -8.8 seconds/vehicle, respectively. The 2024 No Build to Build scenario possesses an average intersection delay increase of approximately 9%.

**Table 5. Mary Grubbs/Beaver/Stephenson Mill/Walton-Verona – PM LOS/Delay (seconds/vehicle)**

Lane Group	EB (Stephenson Mill)			WB (Mary Grubbs)			NB (Walton-Verona)			SB (Beaver)			Int.
	L/T/R	App.	L/T	R	App.	L/T	R	App.	L/T/R	App.			
2022 - Base	F	F	C	D	C	E	F	F	F	F	F	E	
	104.5	104.5	27.8	47.6	34.1	77.5	97.6	97.4	81.2	81.2	64.3		
2024 - No Build	F	F	C	D	C	E	F	F	E	E	E		
	94.3	94.3	26.0	44.5	31.4	79.3	95.7	95.2	79.8	79.8	61.5		
2034 - No Build	F	F	C	D	D	F	F	F	F	F	F	E	
	96.7	96.7	29.1	48.8	35.6	126.6	139.0	138.6	81.9	81.9	78.2		
2024 - Build	F	F	C	D	C	F	F	F	E	E	E		
	101.1	101.1	27.4	44.2	32.8	100.0	113.1	112.7	79.3	79.3	67.3		
2034 - Build	F	F	C	D	C	F	F	F	F	F	E		
	96.2	96.2	28.2	44.8	34.0	89.0	108.8	108.3	91.0	91.0	69.4		

**Mary Grubbs Hwy & I-75 SB Off-Ramp**

The AM and PM analyses completed are shown below in Tables 6 and 7. The average intersection delays of the 2022, 2024, and 2034 AM No Build scenarios are LOS E – F. The increases/decreases in average intersection delays between the 2024 and 2034 No Build and Build scenarios are 19.0 and -17.8 seconds/vehicle, respectively. The 2024 No Build to Build scenario possesses an average intersection delay increase of approximately 26%.

**Table 6. Mary Grubbs & I-75 SB Off-Ramp - AM LOS/Delay (seconds/vehicle)**

Lane Group	EB (Mary Grubbs)			WB (Mary Grubbs)			NB (N/A)			SB (I-75 SB Off-Ramp)			
	T	T/R	App.	L	2T	App.				L	R	App.	Int.
2022 - Base	B	A	A	F	F	F				E	E	E	E
	10.6	6.4	10.0	109.7	170.8	155.0				69.7	67.7	69.1	69.5
2024 - No Build	B	A	B	F	F	F				E	E	E	E
	12.4	7.3	11.7	108.9	190.9	168.0				73.1	66.5	71.0	73.6
2034 - No Build	B	A	B	F	F	F				E	E	E	F
	14.1	9.5	13.5	167.3	243.2	223.7				74.2	78.5	75.5	87.2
2024 - Build	B	A	B	F	F	F				E	E	E	F
	11.4	8.2	10.9	125.1	257.3	228.3				70.5	77.3	72.9	92.6
2034 - Build	B	B	B	E	F	F				E	F	F	E
	17.3	11.2	16.5	54.1	114.8	100.3				79.9	112.7	91.2	69.4

The average intersection delays of the 2022, 2024, and 2034 No Build scenarios are LOS D – E. The increases/decreases in average intersection delays between the 2024 and 2034 No Build and Build scenarios are -0.8 and 3.8 seconds/vehicle, respectively. The 2034 No Build to Build scenario possesses an average intersection delay increase of approximately 4%.

**Table 7. Mary Grubbs & I-75 SB Off-Ramp - PM LOS/Delay (seconds/vehicle)**

Lane Group	EB (Mary Grubbs)			WB (Mary Grubbs)			NB (N/A)			SB (I-75 SB Off-Ramp)			Int.
	T	T/R	App.	L	2T	App.				L	R	App.	
2022 - Base	B	A	B	F	F	F				F	D	E	E
	12.6	9.6	12.0	92.3	139.2	120.6				81.2	54.8	73.6	70.0
2024 - No Build	B	A	B	F	F	F				F	E	F	E
	11.7	7.5	10.9	102.7	148.0	129.8				95.2	59.0	84.9	77.0
2034 - No Build	B	A	B	F	F	F				F	F	F	F
	11.6	7.8	10.9	145.4	205.2	182.3				114.8	88.2	107.1	95.8
2024 - Build	B	A	B	F	F	F				F	E	F	E
	12.9	8.1	12.1	106.0	148.8	131.6				90.9	60.8	82.2	76.2
2034 - Build	B	A	B	F	F	F				F	F	F	F
	13.0	9.2	12.3	131.3	178.2	160.1				137.2	81.2	121.0	99.6

**Mary Grubbs Hwy & I-75 NB Off-Ramp**

The AM and PM analyses completed are shown below in Tables 8 and 9. The average intersection delays of the 2022, 2024, and 2034 AM No Build scenarios are LOS C – D. The increases/decreases in average intersection delays between the 2024 and 2034 No Build and Build scenarios are 8.5 and -17.9 seconds/vehicle, respectively. The 2024 No Build to Build scenario possesses an average intersection delay increase of approximately 27%.

**Table 8. Mary Grubbs & I-75 NB Off-Ramp - AM LOS/Delay (seconds/vehicle)**

Lane Group	EB (Mary Grubbs)			WB (Mary Grubbs)			NB ( I-75 NB Off-Ramp )			SB (N/A)			Int.
	L	2T	App.	T	T/R	App.	L	R	App.				
2022 - Base	C	B	B	D	C	C	F	D	E				C
	28.5	12.4	15.9	53.7	22.7	33.4	143.9	41.5	65.7				30.1
2024 - No Build	C	B	B	D	C	C	F	D	E				C
	30.1	12.8	16.7	53.5	24.5	34.3	141.9	42.4	65.8				31.0
2034 - No Build	C	B	B	F	C	E	F	D	F				D
	31.0	12.6	16.6	107.6	30.8	57.0	380.6	45.4	129.8				49.1
2024 - Build	C	B	B	E	D	D	F	D	E				D
	29.3	12.5	16.0	68.3	39.4	50.4	186.3	40.7	79.5				39.5
2034 - Build	C	B	B	D	D	D	F	D	D				C
	28.9	10.9	14.7	44.4	37.8	40.2	85.0	41.1	53.4				31.2

The average intersection delays of the 2022, 2024, and 2034 No Build scenarios are LOS C – D. The increases/decreases in average intersection delays between the 2024 and 2034 No Build and Build scenarios are -0.6 and -1.1 seconds/vehicle, respectively. The 2024 No Build to Build scenario possesses an average intersection delay decrease of approximately 2%.

**Table 9. Mary Grubbs & I-75 NB Off-Ramp - PM LOS/Delay (seconds/vehicle)**

Lane Group	EB (Mary Grubbs)			WB (Mary Grubbs)			NB ( I-75 NB Off-Ramp )			SB (N/A)			Int.
	L	2T	App.	T	T/R	App.	L	R	App.				
2022 - Base	C	B	B	D	B	C	F	D	D				C
	26.2	12.1	15.1	51.5	19.5	33.6	95.8	39.5	53.6				28.1
2024 - No Build	C	B	B	E	C	D	F	D	E				C
	26.0	12.4	15.3	62.4	21.6	39.5	103.9	39.2	55.4				30.9
2034 - No Build	C	B	B	F	C	E	F	D	F				D
	26.7	12.8	15.7	106.7	27.5	61.0	251.0	39.9	92.3				43.7
2024 - Build	C	B	B	E	C	D	F	D	E				C
	27.0	12.0	15.1	59.3	21.7	38.2	114.3	40.7	57.2				30.3
2034 - Build	C	B	B	F	C	E	F	D	F				D
	27.3	12.6	15.6	92.2	30.3	56.9	262.5	38.1	95.3				42.6

**Beaver Road & Existing Access Driveway**

The AM and PM analyses completed are shown below in Tables 10 and 11. All approaches during the AM possess LOS A with delays less than 10 seconds/vehicle.

**Table 10. Beaver Road & Existing Access Driveway - AM LOS/Delay (seconds/vehicle)**

Lane Group	EB (Beaver Rd)		WB (Beaver Rd)		NB (N/A)			SB (Existing Access)	
	L/T	App.	T/R	App.				L/R	App.
2022 - Base		A		A					A
		1.0		0.3					4.3
2024 - No Build		A		A					A
		0.9		0.3					4.2
2034 - No Build		A		A					A
		1.2		0.4					4.5
2024 - Build		A		A					-
		2.3		0.8					-
2034 - Build		A		A					-
		2.4		0.7					-

All approaches during the PM possess LOS A with delays less than 10 seconds/vehicle.

**Table 11. Beaver Road & Existing Access Driveway - PM LOS/Delay (seconds/vehicle)**

Lane Group	EB (Beaver Rd)		WB (Beaver Rd)		NB (N/A)			SB (Existing Access)	
	L/T	App.	T/R	App.				L/R	App.
2022 - Base		A		A					A
		0.7		0.2					4.4
2024 - No Build		A		A					A
		0.8		0.2					3.9
2034 - No Build		A		A					A
		0.9		0.2					4.3
2024 - Build		A		A					-
		0.8		0.2					-
2034 - Build		A		A					-
		0.8		0.2					-

**Beaver Road & Proposed Access Driveway**

The AM and PM analyses completed are shown below in Tables 12 and 13. All approaches during the AM possess LOS A with delays less than 10 seconds/vehicle.

**Table 12. Beaver Road & Proposed Access Driveway - AM LOS/Delay (seconds/vehicle)**

Lane Group	EB (Beaver Rd)		WB (Beaver Rd)		NB (N/A)			SB (Proposed Access)	
	L/T	App.	T/R	App.				L/R	App.
2022 - Base		A		A					-
		0.1		0.2					-
2024 - No Build		A		A					-
		0.1		0.2					-
2034 - No Build		F		D					-
		0.1		0.2					-
2024 - Build		A		A					A
		0.1		0.6					4.9
2034 - Build		A		A					A
		0.1		0.7					4.9

All approaches during the PM possess LOS A with delays less than 10 seconds/vehicle.

**Table 13. Beaver Road & Proposed Access Driveway - PM LOS/Delay (seconds/vehicle)**

Lane Group	EB (Beaver Rd)		WB (Beaver Rd)		NB (N/A)			SB (Proposed Access)	
	L/T	App.	T/R	App.				L/R	App.
2022 - Base		A		A					-
		0.0		0.2					-
2024 - No Build		A		A					-
		0.0		0.2					-
2034 - No Build		A		A					-
		0.0		0.2					-
2024 - Build		A		A					A
		0.2		0.3					4.2
2034 - Build		A		A					A
		0.2		0.4					4.0

## Turn Lane Warrants

Turn lane warrant analyses were completed for the Beaver Road/existing access driveway and Beaver Road/proposed access driveway intersections per the procedure outlined by the KYTC Highway Design Manual. Tables 14 and 15 summarize the turn lane warrant results. All turn lane warrant calculations can be found in Appendix D.

**Table 14. Turn Lane Warrant Summary – Beaver Road & Existing Access Driveway**

<b>Design Scenario</b>	<b>NB Right Turn Lane</b>	<b>Length</b>
2034 Build AM	Not Warranted	N/A
2034 Build PM	Not Warranted	N/A

As is indicated above, the turn lane warrant results show a turn lane is not warranted for the 2034 AM and PM Build scenarios. Turn lane warrant calculations can be found in Appendix D.

**Table 15. Turn Lane Warrant Summary - Beaver Road & Proposed Access Driveway**

<b>Design Scenario</b>	<b>NB Right Turn Lane</b>	<b>Length</b>
2034 Build AM	Not Warranted	N/A
2034 Build PM	Not Warranted	N/A

As is indicated above, the turn lane warrant results show a turn lane is not warranted for the 2034 AM and PM Build scenarios. Turn lane warrant calculations can be found in Appendix D.

## 7. FINDINGS

### **Mary Grubbs Highway/Stephenson Mill Road & Beaver Road/Walton-Verona Road**

Tables 4 and 5 show the results of the capacity analyses for the AM and PM peak hour periods, respectively. The AM and PM Build scenarios possess average intersection delays ranging from LOS E – F (67.3 – 142.7 seconds/vehicle).

### **Mary Grubbs Highway & I-75 SB Off-Ramp**

Tables 6 and 7 show the results of the capacity analyses for the AM and PM peak hour periods, respectively. The AM and PM Build scenarios possess average intersection delays ranging from LOS E – F (69.4 – 99.6 seconds/vehicle).

### **Mary Grubbs Highway & I-75 NB Off-Ramp**

Tables 8 and 9 show the results of the capacity analyses for the AM and PM peak hour periods, respectively. The AM and PM Build scenarios possess average intersection delays ranging from LOS C – D (30.3 – 42.6 seconds/vehicle).

### **Beaver Road & Existing Access Driveway**

Tables 10 and 11 show the results of the capacity analyses for the AM and PM peak hour periods, respectively. All AM and PM Build scenarios possess approach delays of LOS A (less than 10 seconds/vehicle).

### **Beaver Road & Proposed Access Driveway**

Tables 12 and 13 show the results of the capacity analyses for the AM and PM peak hour periods, respectively. All AM and PM Build scenarios possess approach delays of LOS A (less than 10 seconds/vehicle).

## 95<sup>th</sup> Percentile Queue Lengths

The following shows the tabulated queue lengths for signalized intersections as reported by the Synchro/SimTraffic results. The queue length is defined as the distance from the stop bar that back-up occurs because of delay at an intersection. Another metric used to summarize these results is the Queue Storage Ratio (QSR). The QSR is derived from the reported queue length divided by the available storage capacity.

Table 16 shows queue lengths for the Mary Grubbs Highway/Stephenson Mill Road/Beaver Road/Walton-Verona Road intersection. It should be noted that the intersection experiences queuing and delay challenges (bottlenecking), which is related to/caused by the traffic operation of the Mary Grubbs Highway/I-75 SB off-ramp intersection. For more details regarding the challenges of the closely spaced intersections, see the Existing Area Conditions section. The 2022 Base AM movements (and beyond) that possess QSR values larger than 1 are the westbound left-through (1.12) and the westbound right (1.18). The QSR for the northbound left-through increases from 0.97 to 0.98 during the 2034 AM No Build to Build scenarios. All other AM QSR values are below 1. The 2022 Base PM movements (and beyond) that possess QSRs larger than 1 are the westbound left-through and westbound right, being 1.16 and 1.22, respectively. All other QSR values are significantly below 1.

**Table 16. 95<sup>th</sup> Percentile Queue Lengths (feet) – Mary Grubbs/Stephenson Mill/Beaver/Walton-Verona**

AM Peak						
<i>Movement/Lane Group</i>	<i>Length (feet)</i>	<i>2022 Base</i>	<i>2024 No Build</i>	<i>2024 Build</i>	<i>2034 No Build</i>	<i>2034 Build</i>
<b>Eastbound Left-Through-Right</b>	<i>1,000</i>	199	207	201	203	282
<b>Westbound Left-Through</b>	<i>115</i>	129	132	127	126	130
<b>Westbound Right</b>	<i>115</i>	136	138	127	136	129
<b>Northbound Left-Through</b>	<i>95</i>	85	89	103	92	93
<b>Northbound Right</b>		1,142	1,042	1,023	1,465	1,869
<b>Southbound Left-Through-Right</b>		313	300	329	325	361

PM Peak						
<i>Movement/Lane Group</i>	<i>Length (feet)</i>	<i>2022 Base</i>	<i>2024 No Build</i>	<i>2024 Build</i>	<i>2034 No Build</i>	<i>2034 Build</i>
<b>Eastbound Left-Through-Right</b>	<i>1,000</i>	170	166	158	171	173
<b>Westbound Left-Through</b>	<i>115</i>	134	132	132	136	133
<b>Westbound Right</b>	<i>115</i>	140	139	138	138	141
<b>Northbound Left-Through</b>	<i>95</i>	59	65	90	90	90
<b>Northbound Right</b>		557	573	735	673	676
<b>Southbound Left-Through-Right</b>		306	298	316	321	328

Table 17 shows queue lengths for the Mary Grubbs Highway/I-75 SB off-ramp intersection. It should be noted that the intersection experiences queuing and delay challenges (bottlenecking), which is related to/caused by the traffic operation of the Mary Grubbs Highway/Stephenson Mill Road/Beaver Road/Walton-Verona Road intersection. For more details regarding the challenges of these closely spaced intersections, see the Existing Area Conditions section. The 2022 Base AM movements (and beyond) that possess QSR values larger than 1 are the eastbound through, eastbound through-right, westbound left, and westbound through (1.47, 1.28, 1.59, and 1.53, respectively). The same occurs for the 2022 Base PM scenario (1.48, 1.38, 1.81, and 1.57, respectively). All other AM and PM QSR values are below 1.

**Table 17. 95th Percentile Queue Lengths (feet) – Mary Grubbs & I-75 SB Off-Ramp**

<b>AM Peak</b>						
<i>Movement/Lane Group</i>	<i>Length (feet)</i>	<i>2022 Base</i>	<i>2024 No Build</i>	<i>2024 Build</i>	<i>2034 No Build</i>	<i>2034 Build</i>
<b>Eastbound Through</b>	100	147	150	139	151	150
<b>Eastbound Through-Right</b>	100	128	131	132	135	142
<b>Westbound Left</b>	160	254	244	268	270	188
<b>Westbound Throughs (2)</b>	430	659,269	678,305	696,572	702,319	527,402
<b>Southbound Left</b>	1,550	545	580	587	657	685
<b>Southbound Right</b>	1,600	417	393	426	447	605
<b>PM Peak</b>						
<i>Movement/Lane Group</i>	<i>Length (feet)</i>	<i>2022 Base</i>	<i>2024 No Build</i>	<i>2024 Build</i>	<i>2034 No Build</i>	<i>2034 Build</i>
<b>Eastbound Through</b>	100	148	148	150	149	144
<b>Eastbound Through-Right</b>	100	138	138	133	130	132
<b>Westbound Left</b>	160	290	290	298	304	304
<b>Westbound Throughs (2)</b>	430	674,169	674,169	691,198	685,197	681,215
<b>Southbound Left</b>	1,550	715	715	784	918	965
<b>Southbound Right</b>	1,600	363	363	418	610	639

Table 18 shows queue lengths for the Mary Grubbs Highway/I-75 NB off-ramp intersection. The 2022 Base AM movement (and beyond) that possesses a QSR value larger than 1 is the eastbound left, being 1.17. All other AM QSR values are below 1. The same is true for the 2022 Base PM scenario (and beyond). The QSR for the eastbound left movement is 1.10. All other QSR values are below 1.

**Table 18. 95<sup>th</sup> Percentile Queue Lengths (feet) – Mary Grubbs & I-75 NB Off-Ramp**

<b>AM Peak</b>						
<i>Movement/Lane Group</i>	<i>Length (feet)</i>	<i>2022 Base</i>	<i>2024 No Build</i>	<i>2024 Build</i>	<i>2034 No Build</i>	<i>2034 Build</i>
<b>Eastbound Left</b>	200	234	237	222	234	214
<b>Eastbound Throughs (2)</b>	450	235,223	232,233	229,232	236,245	205,219
<b>Westbound Through</b>	1,180	282	287	311	351	272
<b>Westbound Through-Right</b>	1,180	337	337	332	357	321
<b>Northbound Left</b>	1,200	273	284	385	601	281
<b>Northbound Right</b>	1,330	205	213	205	297	216
<b>PM Peak</b>						
<i>Movement/Lane Group</i>	<i>Length (feet)</i>	<i>2022 Base</i>	<i>2024 No Build</i>	<i>2024 Build</i>	<i>2034 No Build</i>	<i>2034 Build</i>
<b>Eastbound Left</b>	200	219	219	218	222	225
<b>Eastbound Throughs (2)</b>	450	224,228	224,228	220,239	241,252	230,252
<b>Westbound Through</b>	1,180	320	320	335	324	328
<b>Westbound Through-Right</b>	1,180	318	318	335	359	362
<b>Northbound Left</b>	1,200	217	217	221	445	472
<b>Northbound Right</b>	1,330	185	185	194	229	206

## 8. RECOMMENDATIONS

### General

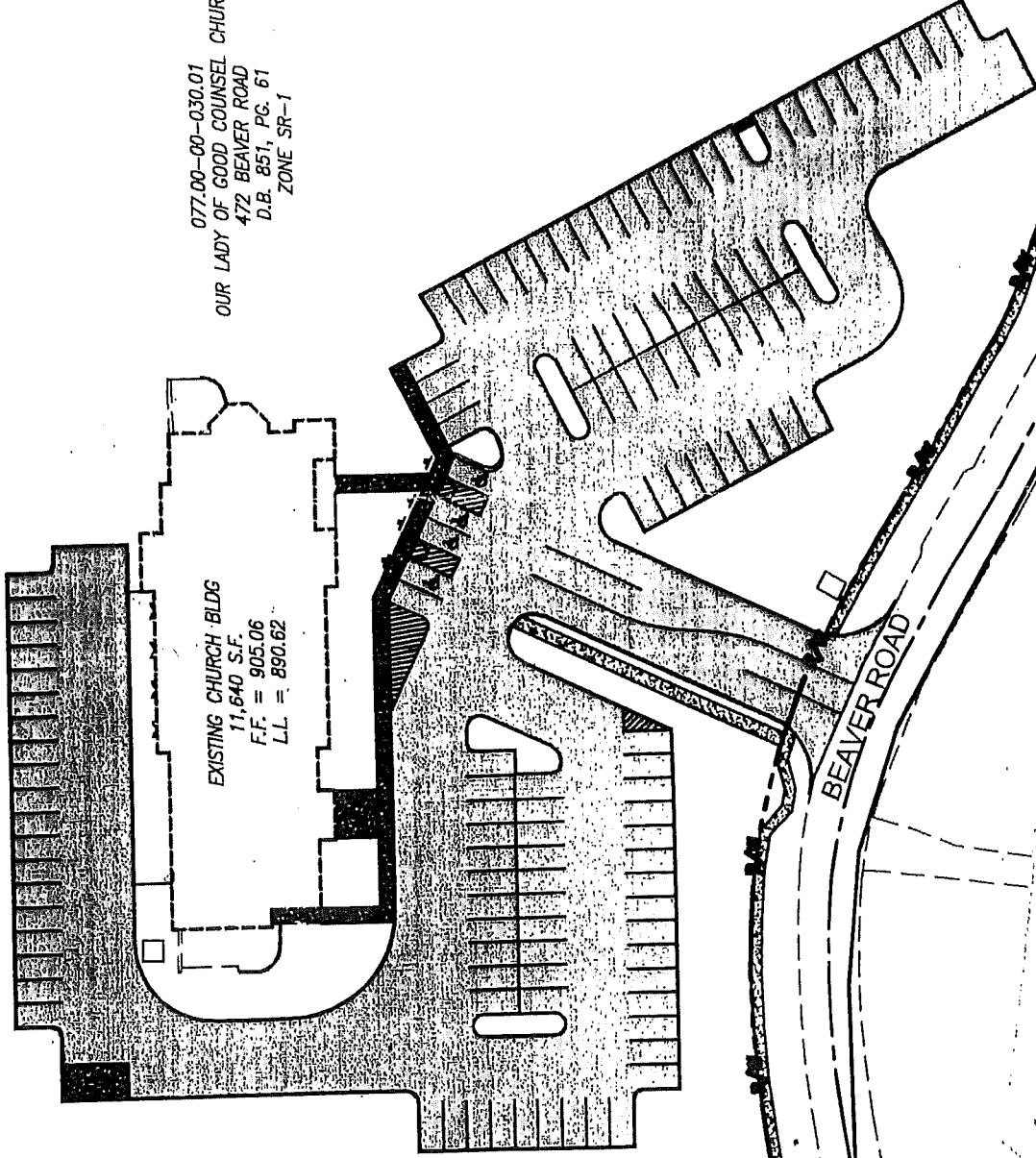
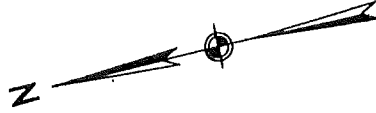
Implementation of all work to be completed as part of the recommendations in this report shall be constructed per the KYTC, Boone County, or City of Walton standards. This includes the construction of access drives, any new lanes on public roads, and other appropriate traffic control devices. Additionally, all improvements made must be in accordance with the standards and regulations of the *Manual of Uniform Traffic Control Devices* (MUTCD) most current edition.

1. Exclusive turn lanes are not required for the existing church access and proposed driveways on Beaver Road. The turn lane warrants were completed for the 2034 post-Full Build scenarios. Since turn lanes were not warranted for the 2034 scenarios, turn lanes were not required for the previous scenarios.
2. It should be noted that, separate from this study, the KYTC is conducting an interchange study at the writing of this report. The study is evaluating potential modifications that can be made to the interchange that might improve the queuing and delay challenges experienced during the AM and PM peak hours. Results from the study are not expected to be available until the end of 2022.

077.00-05-001.00  
ZWICK ROBERT J. & NANCY  
498 BEAVER RD.  
D.B. 351, PG. 13  
ZONE SR-1

077.00-00-030.01  
OUR LADY OF GOOD COUNSEL CHURCH  
472 BEAVER ROAD  
D.B. 851, PG. 61  
ZONE SR-1

EXISTING CHURCH BLDG  
11,640 S.F.  
F.F. = 905.06  
L.L. = 890.62



BEAVER ROAD

SR 7292

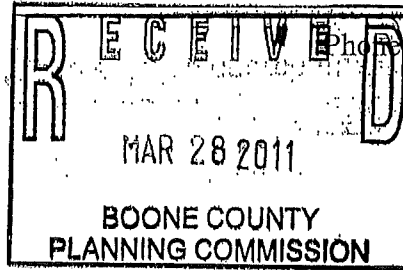
2011 Concept Development Plan



# BOONE COUNTY PLANNING COMMISSION

www.boonecountyky.org/pc  
www.boonecountygis.com

Boone County Administration Building  
2950 Washington Street, Room 317  
P.O. Box 958  
Burlington, KY 41005



Phone: (859) 334-2196; Fax: (859) 334-2264  
plancom@boonecountyky.org

March 18, 2011

Mr. Mark Kolb  
Our Lady of Good Counsel Church  
472 Beaver Road  
Walton, KY 41094

RE: Request of **Mark Kolb (applicant)** for **Our Lady of Good Counsel Church (owner)** for a Zoning Map Amendment from Suburban Residential One (SR-1) to Public Facilities (PF) for a 13.7961 acre site located at 472 Beaver Road, Walton, Kentucky. The request is for a zone change to allow a K-12 school within the existing building in addition to the existing church function.

Dear Mr. Kolb:

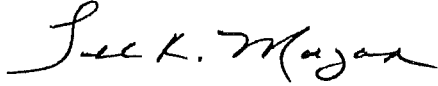
The following represents the conditions of approval for the above referenced Zoning Map Amendment application as agreed to by the Boone County Planning Commission's Zone Change/Concept Development Plan Committee. Please have the appointed church Trustee sign the appropriate space on the last page of this letter if you are in agreement with the conditions. Please return this letter to the Boone County Planning Commission office by April 5, 2011.

## CONDITIONS

1. The approval is based on the submitted application. Proposed uses other than a church or school shall be required to go through the Change in Approved Concept Development Plan public hearing process.
2. The maximum school enrollment shall not exceed 100 students.
3. The applicant shall contact the Kentucky Transportation Cabinet and Boone County Planning Commission about installing school zone signs in the Beaver Road right-of-way within 30 days of Zoning Map Amendment approval by the legislative body. The applicant shall install the school zone signs that will be permitted in the Beaver Road right-of-way by the Kentucky Transportation Cabinet.

Mr. Mark Kolb  
March 18, 2011  
Page 2

Sincerely,

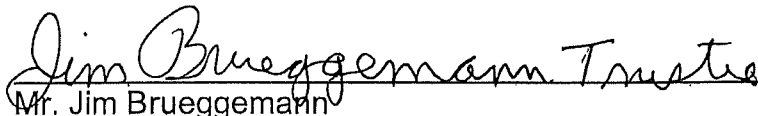


Todd K. Morgan, AICP  
Senior Planner, Zoning Services

TKM\dw

AGREEMENT

I, Jim Brueggemann, agree to the listed conditions of approval for the Zoning Map Amendment application for the 13.7961 acre lot which is described on the first page of this letter.

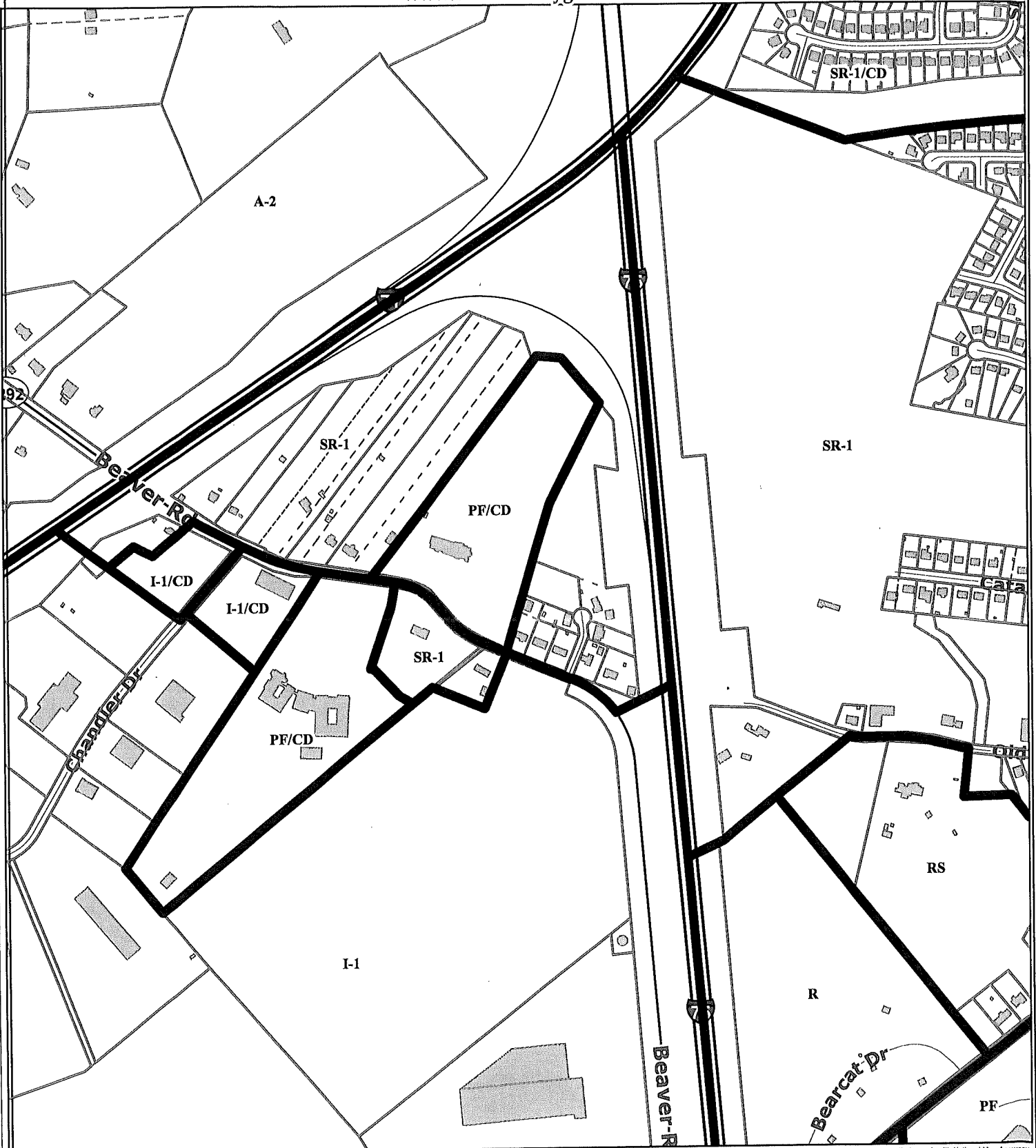


Mr. Jim Brueggemann  
Trustee, Our Lady of Good Counsel Church

3-22-2011  
Date

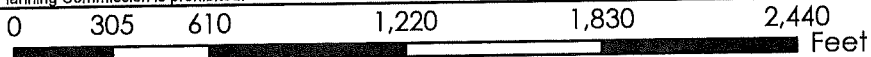
# ZONING MAP

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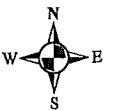


1 inch = 600 feet



Map Created: xx/xx/2020

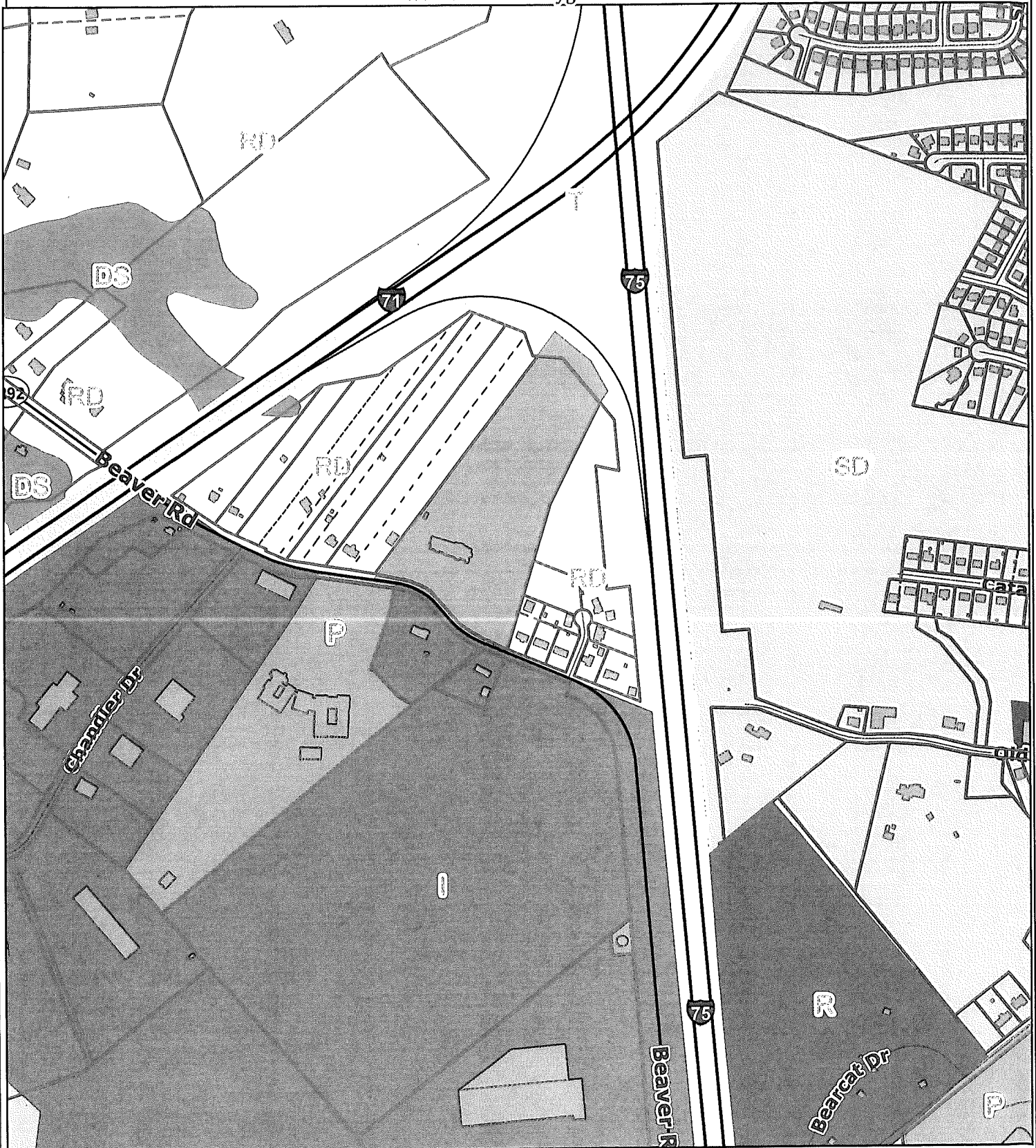
**Boone County GIS - Putting Northern Kentucky on the Map**



North Arrow  
ArcMap Document: \*.mxd

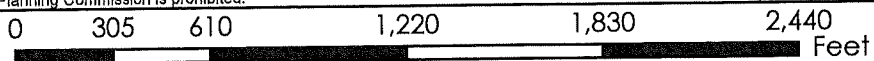
# 2040 FUTURE LAND USE MAP

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1 inch = 600 feet

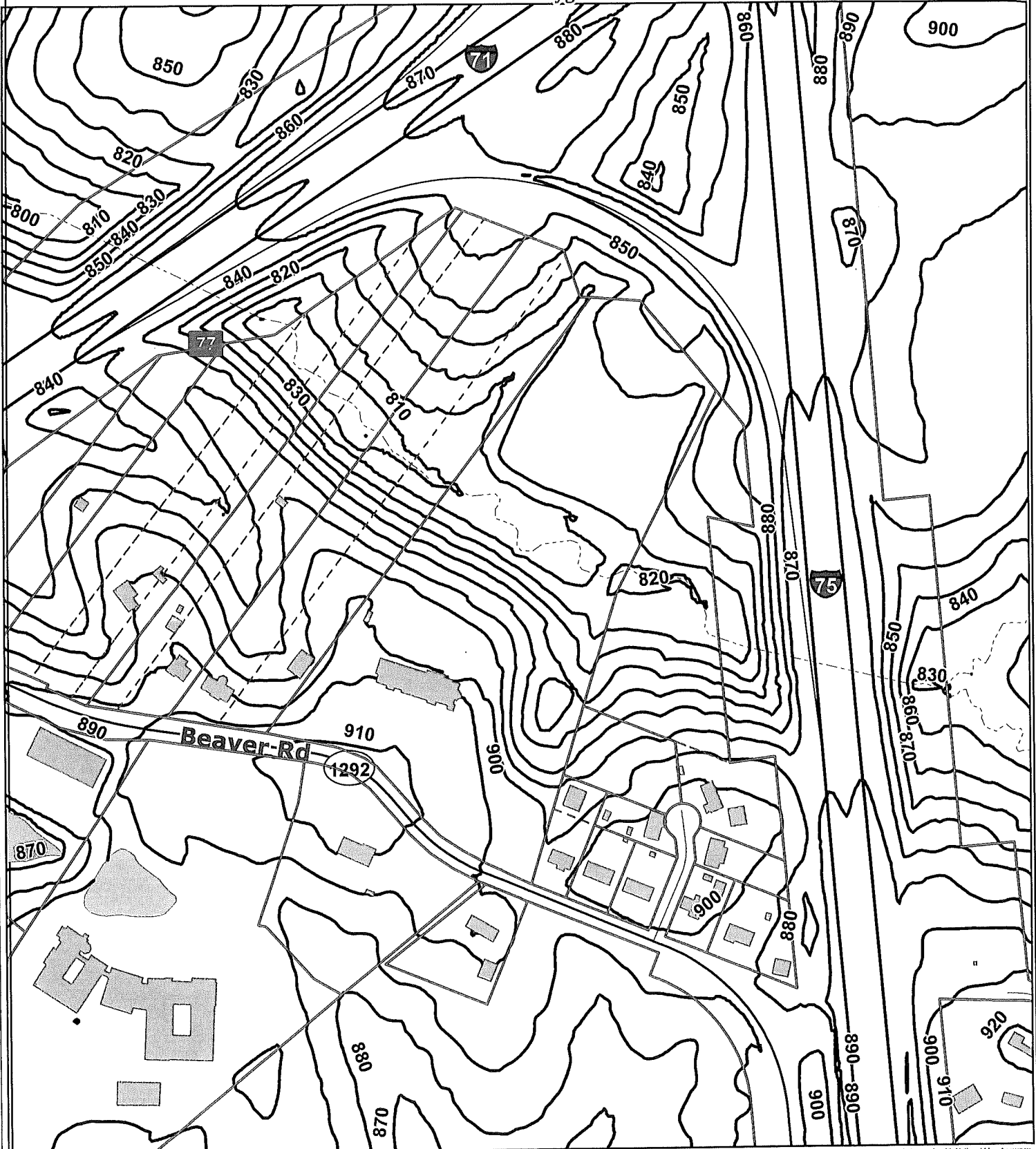


**Boone County GIS - Putting Northern Kentucky on the Map**



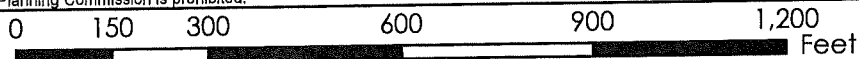
# TOPOGRAPHICAL MAP

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**Boone County GIS - Putting Northern Kentucky on the Map**

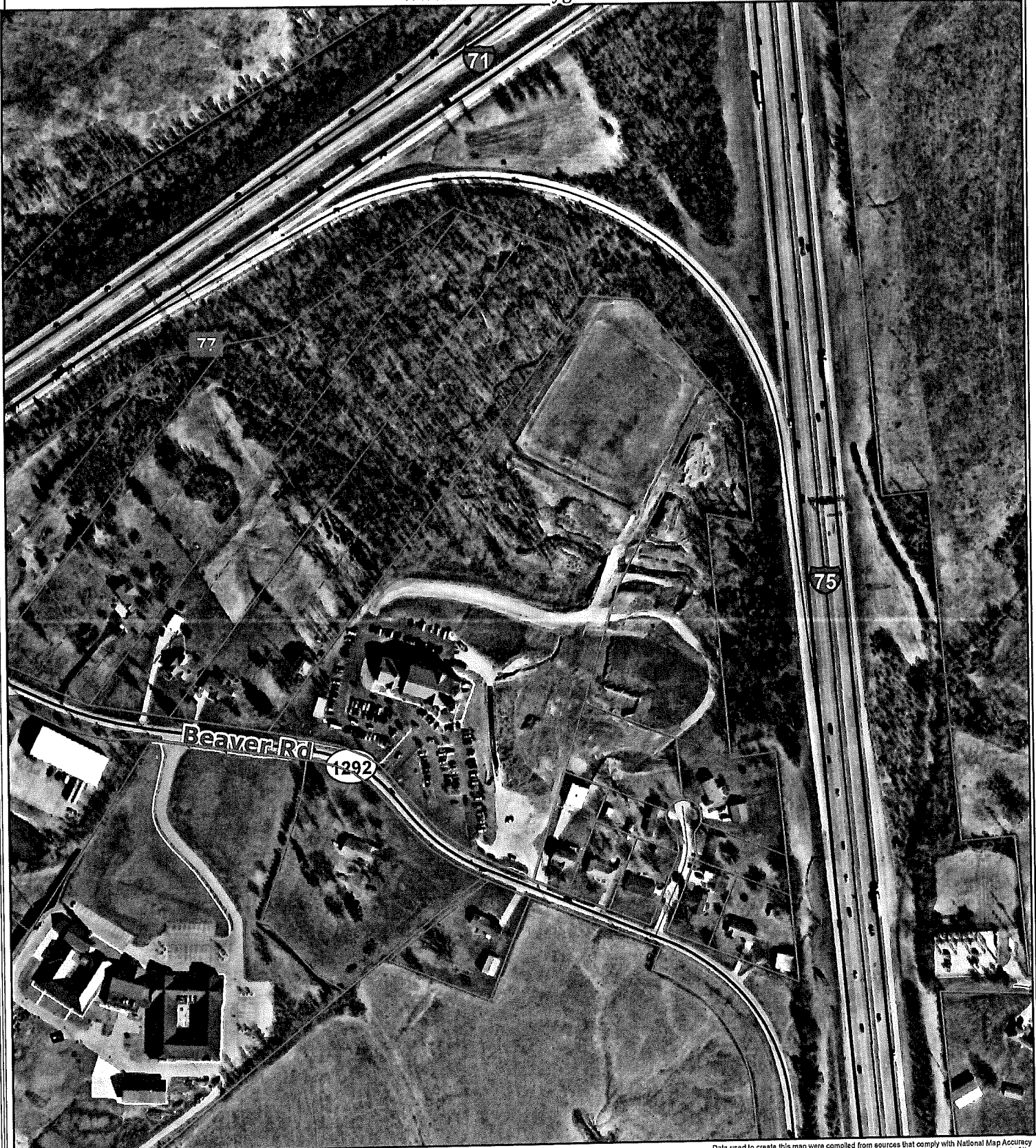


Map Created: xjv/2020

Boone County GIS  
ArcMap Document: \*.mxd

# 2022 AERIAL MAP

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0 150 300 600 900 1,200 Feet

1 Inch = 300 feet



**Boone County GIS - Putting Northern Kentucky on the Map**



Map Created: xxjov/2020

Boone County GIS  
ArcMap Document: \*.mxd

## Todd Morgan

---

**From:** Jerry Noran  
**Sent:** Monday, September 12, 2022 12:38 PM  
**To:** Todd Morgan  
**Subject:** RE: Our Lady of Assumption Academy - Zoning Map Amendment and Change in Approved Concept Development Plan Applications

The existing houses that are planned to be repurposed for church-related functions may require some renovation for accessibility, egress and other code issues, depending on the specific changes in use.

Sincerely,  
Jerald E. Noran, CBO, AIA  
Chief Building Official  
Boone County Building Department  
2950 Washington Street  
P.O.Box 900  
Burlington, KY 41005  
859-334-3288  
jnoran@boonecountky.org

**From:** Todd Morgan <TMorgan@boonecountky.org>  
**Sent:** Monday, September 12, 2022 11:31 AM  
**To:** Matt Bogen <mbogen@cardinalengineering.net>; gregensburger@cityofwalton.org; Charlie Alexander <Charlie.Alexander@waltonfireky.com>; Robert Franxman <rfranxman@boonecountky.org>; Brefeld, Linzy M (KYTC-D06) <Linzy.Brefeld@ky.gov>; Jerry Noran <jnoran@boonecountky.org>  
**Subject:** Our Lady of Assumption Academy - Zoning Map Amendment and Change in Approved Concept Development Plan Applications

All,

Our Lady of Assumption Academy has submitted Zone Change and Change in Approved Concept Development Plan applications to allow the following:

1. Construction of a boys school next to the church at 472 Beaver Road. The proposed school would have two floors and could be up to 63,000 square feet if some future classrooms are constructed. A maximum of 15 classrooms are shown and the auditorium could seat up to 312 people.
2. Construction of a field house near the existing ball field. The main floor is approximately 11,200 square feet and the mezzanine level is 3,400 square feet.
3. Construction of a 1,920 square foot barn near the existing ball field.
4. Conversion of the houses at 404 Beaver Road and 11972, 11982, and 11990 Skyway Drive to church uses.
5. Demolition of the houses at 430 and 438 Beaver Road and 11991 and 11977 Skyway Drive.
6. All or a portion of Skyway Drive will need to be vacated. The school building encroaches into the cul-de-sac.
7. New parking lots are shown. The parking lot near the ball field is shown with gravel surfacing.
8. A new school access point is proposed on Beaver Road. It should be noted that the residential access points at 430 and 438 and Beaver Road would be removed as part of the project.

The public hearing for this request has been scheduled for 10/5/22, at 7:30 P.M. Please let me know if you have any comments that you would like to include in the record. If possible, I would like to receive all comments by 9/26/22.

## Todd Morgan

---

**From:** Brefeld, Linzy M (KYTC-D06) <Linzy.Brefeld@ky.gov>  
**Sent:** Tuesday, September 20, 2022 8:51 AM  
**To:** Todd Morgan  
**Subject:** RE: Our Lady of Assumption Academy - Zoning Map Amendment and Change in Approved Concept Development Plan Applications

### EXTERNAL MESSAGE

Just received the TIS yesterday and we plan to start our review soon.

**From:** Todd Morgan <TMorgan@boonecountyky.org>  
**Sent:** Monday, September 12, 2022 11:31 AM  
**To:** Matt Bogen <mbogen@cardinalengineering.net>; gregensburger@cityofwalton.org; Charlie Alexander <Charlie.Alexander@waltonfireky.com>; Robert Franxman <rfranxman@boonecountyky.org>; Brefeld, Linzy M (KYTC-D06) <Linzy.Brefeld@ky.gov>; Jerry Noran <jnoran@boonecountyky.org>  
**Subject:** Our Lady of Assumption Academy - Zoning Map Amendment and Change in Approved Concept Development Plan Applications

---

**\*\*CAUTION\*\* PDF attachments may contain links to malicious sites. Please contact the COT Service Desk [ServiceCorrespondence@ky.gov](mailto:ServiceCorrespondence@ky.gov) for any assistance.**

---

All,

Our Lady of Assumption Academy has submitted Zone Change and Change in Approved Concept Development Plan applications to allow the following:

1. Construction of a boys school next to the church at 472 Beaver Road. The proposed school would have two floors and could be up to 63,000 square feet if some future classrooms are constructed. A maximum of 15 classrooms are shown and the auditorium could seat up to 312 people.
2. Construction of a field house near the existing ball field. The main floor is approximately 11,200 square feet and the mezzanine level is 3,400 square feet.
3. Construction of a 1,920 square foot barn near the existing ball field.
4. Conversion of the houses at 404 Beaver Road and 11972, 11982, and 11990 Skyway Drive to church uses.
5. Demolition of the houses at 430 and 438 Beaver Road and 11991 and 11977 Skyway Drive.
6. All or a portion of Skyway Drive will need to be vacated. The school building encroaches into the cul-de-sac.
7. New parking lots are shown. The parking lot near the ball field is shown with gravel surfacing.
8. A new school access point is proposed on Beaver Road. It should be noted that the residential access points at 430 and 438 and Beaver Road would be removed as part of the project.

The public hearing for this request has been scheduled for 10/5/22, at 7:30 P.M. Please let me know if you have any comments that you would like to include in the record. If possible, I would like to receive all comments by 9/26/22.

I appreciate your help.

Todd K. Morgan, AICP  
Senior Planner, Zoning Services  
Boone County Planning Commission  
(859) 334-2196

## Todd Morgan

---

**From:** Robert Franxman  
**Sent:** Monday, September 26, 2022 4:07 PM  
**To:** Todd Morgan  
**Subject:** RE: Our Lady of Assumption Academy - Zoning Map Amendment and Change in Approved Concept Development Plan Applications

Todd,

No comments other than the previously discussed vacation of R/W on Skyway Dr. Viox has reached out regarding this and they will be making submittal for vacation at the appropriate time.

Thanks,  
Rob

---

**From:** Todd Morgan <TMorgan@boonecountyky.org>  
**Sent:** Monday, September 12, 2022 11:31 AM  
**To:** Matt Bogen <mbogen@cardinalengineering.net>; gregensburger@cityofwalton.org; Charlie Alexander <Charlie.Alexander@waltonfireky.com>; Robert Franxman <rfranxman@boonecountyky.org>; Brefeld, Linzy M (KYTC-D06) <Linzy.Brefeld@ky.gov>; Jerry Noran <jnoran@boonecountyky.org>  
**Subject:** Our Lady of Assumption Academy - Zoning Map Amendment and Change in Approved Concept Development Plan Applications

All,

Our Lady of Assumption Academy has submitted Zone Change and Change in Approved Concept Development Plan applications to allow the following:

1. Construction of a boys school next to the church at 472 Beaver Road. The proposed school would have two floors and could be up to 63,000 square feet if some future classrooms are constructed. A maximum of 15 classrooms are shown and the auditorium could seat up to 312 people.
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5. Demolition of the houses at 430 and 438 Beaver Road and 11991 and 11977 Skyway Drive.
6. All or a portion of Skyway Drive will need to be vacated. The school building encroaches into the cul-de-sac.
7. New parking lots are shown. The parking lot near the ball field is shown with gravel surfacing.
8. A new school access point is proposed on Beaver Road. It should be noted that the residential access points at 430 and 438 and Beaver Road would be removed as part of the project.

The public hearing for this request has been scheduled for 10/5/22, at 7:30 P.M. Please let me know if you have any comments that you would like to include in the record. If possible, I would like to receive all comments by 9/26/22.

I appreciate your help.

Todd K. Morgan, AICP  
Senior Planner, Zoning Services  
Boone County Planning Commission

**EXHIBIT**

**“B”**

**ZONE CHANGE/CONCEPT PLAN COMMITTEE REPORT**

**#1**

**TO:** Boone County Planning Commission

**FROM:** Corrin Gulick, Chairwoman

**DATE:** November 2, 2022

**RE:** Request of **Viox and Viox, per Megan de Sola (applicant)** for **Our Lady of Good Counsel Church and Home Sweet Home Trust (owners)** for a Zoning Map Amendment from Suburban Residential One (SR-1) to Public Facilities (PF) for an approximate 9.1 acre area located at 404 Beaver Road, 430 Beaver Road, 438 Beaver Road, 11972 Skyway Drive, 11982 Skyway Drive, 11990 Skyway Drive, 11991 Skyway Drive, 11977 Skyway Drive, the property with the following Property Identification Number (PIDN): 077.00-03-007.01, and the right-of-way of Skyway Drive, Boone County, Kentucky and a Request of **Viox and Viox per Megan de Sola (applicant)** for **Our Lady of Good Counsel Church (owner)** for a Change of Concept Development Plan in a Public Facilities (PF) district for an approximate 13.8 acre area located at 472 Beaver Road, Walton, Kentucky. The request is for a zone change and change of concept development plan to allow the construction of a school building, field house, and a storage barn, use of the existing church, use of existing single-family residential dwellings for church related purposes, and the redesign of parking areas and access drives.

**REMARKS:**

We, the Committee, recommend approval of the above referenced request based on the following findings of fact and conditions:

**FINDINGS OF FACT**

1. The request is in general agreement with Our Boone County Plan 2040 for the following reasons:
  - A. The "2040 Future Land Use Plan" designates the site for "Public/Institutional" and "Rural Density Residential" uses. These future land use designations are defined as follows:

Public/Institutional – "Government offices, schools, libraries, churches, cemeteries, fairgrounds, maintenance areas, etc."

Rural Density Residential – "Low density residential uses of up to one dwelling unit per acre."
  - B. The proposal is in agreement with the following Goals and Objectives:

## ZONE CHANGE/CONCEPT PLAN COMMITTEE REPORT

Viox & Viox, Inc./Our Lady of Good Counsel Church/Home Sweet Home Trust

November 2, 2022

Page 2

- Land uses and zoning decisions shall strive to balance the rights of landowners with the rights of neighbors and the community (Overall Goal A, Objective 4).
  - Public facilities and services shall be in locations that are accessible to the population being served (Public Facilities, Goal A, Objective 7).
  - The education system shall provide a broad range of lifetime learning opportunities, as well as both private and public educational facilities and services (Public Facilities, Goal A, Objective 12).
  - Priority shall be given towards maintaining, protecting, and improving the capacity and safety of the existing road system across jurisdictions (Transportation, Objective 1).
  - Traffic impact analysis should be used as a tool to address impacts to the existing transportation system (Transportation, Goal C, Objective 3).
- C. The proposal is in agreement with the following passages from the land use element:
- Developments in Boone County must recognize the potential impacts of associated traffic on adjoining properties and transportation systems. The need exists to protect the capacity of the existing roadway network and to plan improvements to accommodate new development and travel patterns. Access management provisions include the coordination of curb cuts, adequate corner clearance and sight distance for access points, adequate spacing between access points, shared access points and parking facilities, provisions for access connections to adjoining properties, and dedication of public right-of-way. In subdividing property, arterial or collector streets should not be used for direct access to lots, rather a system of local streets should feed into the collector and arterial street system. Connections between and within commercial and industrial developments allow for more efficient provision of transit service. In addition, the amount of travel time saved for services relying on routing (such as school buses, waste collection, mail, and other delivery services) is invaluable, not to mention the importance of simply connecting neighborhoods and people to each other. More importantly, the connectivity between developments promotes safety as emergency response vehicles have multiple ways of gaining access to a property during an emergency (Future Land Use Development Guidelines, Access Management, pg. 96).
  - The Future Land Use boundaries are intended to be approximate and subject to refinement and interpretation by the Planning Commission and county legislative bodies. delayed until planned infrastructure is provided (Description and Purpose of Land Use Maps, pg. 99).

## ZONE CHANGE/CONCEPT PLAN COMMITTEE REPORT

Viox & Viox, Inc./Our Lady of Good Counsel Church/Home Sweet Home Trust

November 2, 2022

Page 3

D. The proposal is in agreement with the following passage from the Public Facilities Element:

- Private schools, primarily in conjunction with religious institutions, ease part of the pressure placed on public schools as new residents come into the county. As the county continues to grow, new private schools can be expected to emerge and should be encouraged as long as they meet or surpass the standards of public schools. Currently, several private or parochial schools exist in Boone County (Private Schools, pg. 80):

### CONDITIONS

The Committee has concluded the attached conditions are necessary to achieve consistency with the specific goals, objectives, and policies of Our Boone County Plan 2040 and Article 3 (Amendment) of the Boone County Zoning Regulations. The Committee also concluded the attached conditions are necessary to mitigate any foreseeable community impacts that may be created by the development. The property owner has signed a letter demonstrating agreement with the conditions.

1. The approval shall be based on the submitted Concept Development Plans.
2. The maximum enrollment of the school shall be 360 students.
3. The architecture of the proposed school shall correlate to the church at 472 Beaver Road and school at 479 Beaver Road.
4. Kentucky Transportation Cabinet shall approve the Traffic Impact Study and determine the number of access points and road improvements that are required.
5. The school starting time shall be staggered with the school across the street to reduce traffic impacts.
6. The four houses (4) shown on the Concept Plan can be converted to church uses. The construction of any new buildings or recreational fields in this part of the site shall be reviewed through the Change in Approved Concept Development Plan application process.
7. The property owner shall contact Kentucky Transportation Cabinet and pursue the approval of school zone signs in the Beaver Road right-of-way. The applicant shall provide a letter or email to Boone County Planning Commission documenting that they have pursued approval of these signs. This letter or email shall be furnished to the Planning Commission at the time the Major Site Plan application is submitted for review.
8. The parking lot near the ballfield can remain gravel until such time that the field is used by the public or school/recreational leagues.

ZONE CHANGE/CONCEPT PLAN COMMITTEE REPORT  
Viox & Viox, Inc./Our Lady of Good Counsel Church/Home Sweet Home Trust  
November 2, 2022  
Page 4

10. Daycares or pre-schools shall not operate from the site.
11. The church stage and roof cover shall only be permitted on site during and immediately before and after the church festival.
12. A consolidation plat shall be required for all properties which do not have legal frontage after Skyway Drive is vacated.

A copy of the Public Hearing minutes accompanies the findings and recommendation serving as a summary of the evidence and testimony presented by the proponents and opponents of this request. Attached is the signature page for the Zone Change/Concept Development Plan Committee vote.

**ZONE CHANGE/CONCEPT PLAN COMMITTEE VOTE**

TO: Boone County Planning Commission  
FROM: Kim Patton, Chairman  
DATE: October 26, 2022

**REMARKS:**

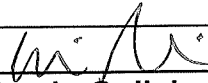
We, the Committee Members were present at the Committee Meeting and voted on the above request or else were absent from voting. Further, based upon the vote, the Committee directs the Staff to draft the findings of fact and conditions if deemed necessary in order to complete the Committee Report.

**ZONING MAP AMENDMENT, Kim Patton, Chairman, Todd Morgan, Staff**

2. Request of **Viox and Viox, per Megan de Sola (applicant)** for **Our Lady of Good Counsel Church and Home Sweet Home Trust (owners)** for a Zoning Map Amendment from Suburban Residential One (SR-1) to Public Facilities (PF) for an approximate 9.1 acre area located at 404 Beaver Road, 430 Beaver Road, 438 Beaver Road, 11972 Skyway Drive, 11982 Skyway Drive, 11990 Skyway Drive, 11991 Skyway Drive, 11977 Skyway Drive, the property with the following Property Identification Number (PIDN): 077.00-03-007.01, and the right-of-way of Skyway Drive, Boone County, Kentucky and a Request of **Viox and Viox per Megan de Sola (applicant)** for **Our Lady of Good Counsel Church (owner)** for a Change of Concept Development Plan in a Public Facilities (PF) district for an approximate 13.8 acre area located at 472 Beaver Road, Walton, Kentucky. The request is for a zone change and change of concept development plan to allow the construction of a school building, field house, and a storage barn, use of the existing church, use of existing single-family residential dwellings for church related purposes, and the redesign of parking areas and access drives.

\_\_\_\_\_  
**Janet Kegley**

For Project \_\_\_\_ Absent \_\_\_\_  
Against Project \_\_\_\_  
Abstain \_\_\_\_ Deferred \_\_\_\_

  
\_\_\_\_\_  
**Corrin Gulick**

For Project X Absent \_\_\_\_  
Against Project \_\_\_\_  
Abstain \_\_\_\_ Deferred \_\_\_\_

\_\_\_\_\_  
**Rick Lunnemann**

For Project \_\_\_\_ Absent \_\_\_\_  
Against Project \_\_\_\_  
Abstain \_\_\_\_ Deferred \_\_\_\_

\_\_\_\_\_  
**Randy Bessler (Alternate)**


For Project \_\_\_\_ Absent \_\_\_\_  
Against Project \_\_\_\_  
Abstain \_\_\_\_ Deferred \_\_\_\_

\_\_\_\_\_  
**Kim Patton (Chairman)**

For Project \_\_\_\_ Absent \_\_\_\_  
Against Project \_\_\_\_  
Abstain \_\_\_\_ Deferred \_\_\_\_

\_\_\_\_\_  
**Steve Turner (Alternate)**

For Project \_\_\_\_ Absent \_\_\_\_  
Against Project \_\_\_\_  
Abstain \_\_\_\_ Deferred \_\_\_\_

  
\_\_\_\_\_  
**Steve Harper**

For Project X Absent \_\_\_\_  
Against Project \_\_\_\_  
Abstain \_\_\_\_ Deferred \_\_\_\_

\_\_\_\_\_  
**Jackie Steele (Alternate)**

For Project \_\_\_\_ Absent \_\_\_\_  
Against Project \_\_\_\_  
Abstain \_\_\_\_

**TOTAL:**    \_\_\_\_ DEFERRED 2 FOR PROJECT \_\_\_\_ ABSENT  
                  \_\_\_\_ AGAINST PROJECT \_\_\_\_ ABSTAIN

**COMMISSION MEMBERS PRESENT:**

Mrs. Kathy Clark  
Mrs. Pamela Goetting  
Ms. Corrin Gulick  
Mr. Steve Harper  
Mr. David Hincks  
Mrs. Janet Kegley  
Mr. Rick Lunnemann  
Mr. Kim Patton, Vice Chairman  
Mr. Charlie Rolfsen, Chairman  
Mr. Bob Schwenke  
Mr. Tom Szurlinski  
Mr. Steve Turner, Temporary Presiding Officer  
Mr. Kenny Vaught

**COMMISSION MEMBERS NOT PRESENT:**

Mr. Randy Bessler  
Mrs. Jackie Steele

**LEGAL COUNSEL PRESENT:**

Mr. Dale Wilson

**STAFF MEMBERS PRESENT:**

Mr. Kevin P. Costello, AICP, Executive Director  
Mr. Michael Schwartz, Director, Zoning Services  
Mr. Todd K. Morgan, Senior Planner  
Mrs. Alaina Hagenseker, Planner

Chairman Rolfsen introduced the second item on the Agenda at 8:29 p.m.

**ZONING MAP AMENDMENT AND CHANGE IN CONCEPT DEVELOPMENT PLAN, Todd Morgan, Staff**

2. Request of **Viox and Viox, per Megan de Sola (applicant)** for **Our Lady of Good Counsel Church and Home Sweet Home Trust (owners)** for a Zoning Map Amendment from Suburban Residential One (SR-1) to Public Facilities (PF) for an approximate 9.1 acre area located at 404 Beaver Road, 430 Beaver Road, 438 Beaver Road, 11972 Skyway Drive, 11982 Skyway Drive, 11990 Skyway Drive, 11991 Skyway Drive, 11977 Skyway Drive, the property with the following Property Identification Number (PIDN): 077.00-03-007.01, and the right-of-way of Skyway Drive, Boone County, Kentucky and a Request of **Viox and Viox per Megan de Sola (applicant)** for **Our Lady of Good Counsel Church (owner)** for a Change of Concept Development Plan in a Public Facilities (PF) district for an approximate 13.8 acre area located at 472 Beaver Road, Walton, Kentucky. The request is for a zone change and change of concept development plan to allow the construction of a school building, field house, and a storage barn, use of the existing church, use of existing single-family residential dwellings for church related purposes, and the redesign of parking areas and access drives.

Staff Member, Todd Morgan, referred to his PowerPoint presentation. The request is to construct a new boys school next to the existing church. In 2011, a zone change was approved to rezone 13.8 acres from SR-1 to PF to allow a K-12 school in the church building. It was subject to 3 conditions which included a maximum number of students. Part of the site is located in unincorporated Boone County and the applicant has filed an intent to annex into the City of Walton. The submitted Concept Development Plan indicates a 1,920 square foot barn near the existing ballfield, a 14,620 square foot fieldhouse, a two story, 63,000 square foot boys school with 15 classrooms and a 312 person auditorium. It would serve 360 K-12 students. The plan is to vacate Skyway Drive since the proposed school will be located in this area. The 4 existing houses east of Skyway Drive would remain and be converted to a church use. The existing houses to the west of Skyway Drive would be demolished because of the new parking lot and school. Two hundred thirteen parking spaces are proposed. Mr. Morgan described the traffic circulation. It encourages more stacking. The site drops 70 feet from the road. Mr. Morgan described the zoning and land uses on the site and adjoining properties. He showed photographs of the site, which included a portable stage. The Future Land Use Map designates this site as Public/Institutional (P) and Rural Density Residential (RD). The Staff Report includes the applicable regulations that apply to the zone change as well as refers to the Comprehensive Plan and the need for private schools. He referred to Item #4 and Item #8 on Page 6 of the Staff Report as it relates to Goals and Objectives – public facility locations and traffic impacts. The applicant has submitted a traffic study and sections of it are in the Staff Report. It has been submitted to the State. Mr. Morgan stated that he has received some comments from different agencies. Letters and emails are included in the Staff Report. It includes comments from the Kentucky Transportation Cabinet, the Boone County Public Works Department and the Boone County Building Department. With Skyway Drive being eliminated, the church and school will have 4

access points and the applicant would normally need 1,500 feet of road frontage. If the State approves the 4 access points, the Zoning Administrator would also approve a spacing waiver. Mr. Morgan referred to the 14 questions he had with the application. The questions are identified on Page 7 of the Staff Report. They involve building elevations/architecture, auditorium size, school activities, athletic fields lighting, paved parking, the use of the 4 remaining houses, the use of school buses, daycare use, moving access points, sidewalks on Beaver Road, status of the outside stage and student size of Our Lady of Sacred Heart. Finally, what about school safety signs located on Beaver Road? Are the signs required and when? If Skyway Drive is vacated, then the lots in the back would have no road frontage. Should a consolidation plat be submitted?

Chairman Rolfsen asked if the applicant was present and wanted to proceed with their presentation?

Ms. Megan deSola, applicant, described the history of Our Lady of Assumption Church, which opened in 2010. The Assumption Academy for boys and girls opened in 2011 inside the church building. In 2018, the church built the Sacred Heart Academy (K-3 for boys & girls) and (4-10 girls only). They expect to expand to 11-12 grades (girls only). Assumption Academy still operates inside the church (4-12 grade boys). Enrollment continues to grow. Now they want to construct a new Assumption Academy (K-12 boys). Sacred Heart would then become K-12 for girls. The maximum enrollment for the boys school will be 360 students. The maximum enrollment for the girls school will be 250 students (currently 220 students). Ms. deSola reviewed the zoning history of the site from 2010-2015. The total site is 22.9 acres of which 13.7 acres is located in the City of Walton and is zoned PF. The remaining 9.1 acres is located in unincorporated Boone and is zoned SR-1. The PF zoned property is part of the Change in Concept Development Plan application. The proposed building will have a main floor and a lower level. The main level will be 45,500 square feet and the lower level will be approximately 17,500 square feet for a total of 63,000 square feet as well as other site improvements – a drop off loop, parking lot, fieldhouse and a storage barn.

Mr. Justin Verst, Viox & Viox, Inc., showed a map of the City of Walton and pictures of the proposed architecture to match the existing buildings (stone & brick materials). The roof will be metal or asphalt. The traffic study does not show a need for additional lanes on Beaver Road. There is more of a problem at the interchange. An Interchange Study is underway by the State. Recommendations will be made at the end of the year. They have a encroachment permit for a temporary access point. It was difficult to obtain. They had to do detailed studies on speed and sight distances. There are safety issues related to moving curb cuts. Mr. Verst described the school traffic pattern in detail. There is a tremendous amount of stacking space. There are no school buses for the school. It is all private transportation. They have a lot of passenger vehicles that carry 5-6 kids. The traffic study assumes more traffic than it really is today. In the short term, the remaining houses would stay as a rental house and maybe become a church use later on. They may use the property as soccer fields or maintenance facilities in the future. Both schools start times are staggered. The State will allow them to install a school zone sign if there are at least 200 students. There has not been an issue of speed while the girls school has been opened. They would like to pursue it after the boys school opens up. The school zone sign allows you to

lower the speed limit by 10 mph. It is 55 mph on the road today. The average speed is 45 mph because of the hump on Beaver Road. It is not a problem now. The fields will only be used by the school and not by outside groups. They would like to put gravel down on the future parking lot. It wouldn't be open to the public. The intent is to provide security lighting. Lighting the fields will not occur at first since no night games will be played there. It is well lit by the interstate lights. The school will be leaving the church to go to its new building. There will be no pre-school or day care at the new school. The stage is only for the church festival. It will be put up and taken down. A sidewalk will be built all the way over to Beaver Road. They will hold off putting a sidewalk beyond Skyway Drive until they know what they want to build in the area. In the short term, nothing will be built there. Mr. Verst also stated that they are willing to submit a consolidation plat. The auditorium will be sized based on the size of the school.

Chairman Rolfsen asked if there was anyone in the audience who wanted to speak in favor or against the request?

Mr. Chet Hand, 674 Chambers Road, stated that he was in support of the project. Private churches and schools are a critical element of the overall community. Anything we can do as a County to support private churches and schools, we should do it. This community has been a major social and economic draw to our area. We have dozens and dozens of families that have moved into the area specifically for this church.

Mr. Matt Page stated that he lives across from the school/church and expressed a concern about the safety and speed limit on the road. There are a lot of semi trucks on the road. There is a curve on the road that is dangerous for traffic coming from the west. He asked for a school zone sign to be posted. Is the proposed curb cut the same one that was turned down before? The road hasn't changed. Mr. Morgan replied that the applicant's request was for a right out only and the State turned it down. A speed study was conducted to allow a temporary construction entrance only. The posted speed limit was not changed. The speed could be lowered based upon traffic conditions and number of students enrolled. It may have to be requested by the Judge/Executive or Mayor.

Chairman Rolfsen asked why the school wouldn't want a school zone safety sign? Mr. Verst noted that Staff made a good suggestion especially if the posted speed limit is dropped to 45 mph then the school zone speed would be 35 mph. Mr. Rolfsen noted that at least the school safety zone sign acknowledges the presence of a school even if the State doesn't lower the posted speed limit initially.

Ms. Gulick mentioned that the sight distance study itself says that one will not have enough space to stop if you are going 55 mph. If kids are being dropped off, it is imperative that the sign be requested. Mr. Costello stated that the Planning Commission is willing to write a letter of support of the need for the sign.

Chairman Rolfsen inquired about traffic patterns to and from the site? Mr. Verst responded that it

is an even split – about half from the west on Beaver Road and the rest from the interchange. Most of the students are from Boone County (Beaver Road) and south (Crittenden).

Mrs. Clark asked if the school was accredited? Fr. Stanich responded that they are working on the accreditation. It is a process and it will take a few more years.

Ms. Gulick asked the applicant to provide more details on the left turn lane analysis to the Committee. Mr. Verst replied yes.

**Seeing no further questions or comments, Chairman Rolfsen announced that the Committee Meeting for this item will be on October 26, 2022 at 5:00 P.M. This item will be on the Agenda for the Business Meeting on November 2, 2022 at 7:00 p.m. in the Fiscal Courtroom. The Chairman Rolfsen closed the Public Hearing at 9:12 p.m.**

APPROVED:



Charlie Rolfsen  
Chairman

Attest:



Kevin P. Costello, AICP  
Executive Director

**COMMISSION MEMBERS PRESENT:**

Mrs. Kathy Clark  
Mrs. Pamela Goetting  
Ms. Corrin Gulick  
Mr. Steve Harper  
Mr. David Hincks  
Mrs. Janet Kegley  
Mr. Rick Lunnemann  
Mr. Kim Patton, Vice Chairman  
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APPROVED:



Charlie Rolfsen  
Chairman

Attest:



Kevin P. Costello, AICP  
Executive Director

**BOONE COUNTY PLANNING COMMISSION  
BOONE COUNTY FISCAL COURTROOM  
BURLINGTON, KENTUCKY  
BUSINESS MEETING  
NOVEMBER 2, 2022  
7:00 P.M.**

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Chairman Charlie Rolfsen opened the Business Meeting at 7:00 p.m. and welcomed the audience to the Planning Commission's November 2, 2022 Business Meeting. Chairman Rolfsen then invited everyone to join him in reciting the Pledge of Allegiance.

**COMMISSION MEMBERS PRESENT:**

Mr. Randy Bessler  
Mrs. Kathy Clark  
Mrs. Pamela Goetting  
Ms. Corrin Gulick  
Mr. Steve Harper  
Mr. David Hincks  
Mrs. Janet Kegley  
Mr. Rick Lunnemann  
Mr. Kim Patton, Vice Chairman  
Mr. Charlie Rolfsen, Chairman  
Mr. Bob Schwenke  
Mrs. Jackie Steele, Secretary/Treasurer  
Mr. Tom Szurlinski  
Mr. Kenny Vaught

**COMMISSION MEMBERS NOT PRESENT:**

Mr. Steve Turner, Temporary Presiding Officer

**LEGAL COUNSEL PRESENT:**

Mr. Dale Wilson

**STAFF MEMBERS PRESENT:**

Mr. Kevin P. Costello, AICP, Executive Director  
Mr. Michael Schwartz, Director, Zoning Services  
Mr. Todd K. Morgan, Senior Planner  
Mrs. Alaina Hagenseker, Planner

**APPROVAL OF THE MINUTES:**

Chairman Rolfsen stated that the Commissioners received copies of the Minutes from the October 19, 2022 Business Meeting. Chairman Rolfsen asked if there were any other comments or corrections?

Mr. Patton moved to approve the Minutes as presented. Mr. Szurlinski seconded the motion and it carried unanimously.

**BILLS:**

Mr. Kevin P. Costello, AICP, Executive Director, advised the Commissioners of the Bills to be Paid, which included a list of Expenses and Salaries and Benefits for a time period between October 6, 2022 and November 2, 2022.

**EXPENSES:**

Attorney Fees	\$ 4,400.00
Consultant/Professional Svcs Fees	2,855.00
Filing Fees (CLURS)	1,050.00
Legal Ads/Recruitment	311.56
Miscellaneous Expense	131.50
Office & Board Meeting Supplies	564.57
Office Equipment / Expense	318.93
Postage Expense	1,005.00
Printing/Pub/Dues/Subscriptions	1,647.50
Professional Development	500.04
Refunds	<u>250.00</u>

**TOTAL: \$ 13,034.10**

**SALARIES AND BENEFITS:**

FICA-BCPC Portion	\$ 4,995.45
Health/Dental/Life/LTD	13,283.93
Retirement – BCPC Portion	24,294.25
Salaries – Staff Expenses	87,228.98
Salaries – BCPC & BOA	<u>1,445.00</u>

**TOTAL: \$131,256.61**

**GRAND TOTAL: \$144,290.71**

Ms. Gulick moved that the bills (expenses and salaries and benefits) be approved and paid as presented and indicated approval of those items, which have been previously paid. Mr. Lunnemann seconded the motion and it carried unanimously.

**ZONING MAP AMENDMENT, Corrin Gulick, Chairwoman, Todd Morgan, Staff**

1. Request of **Viox and Viox, per Megan de Sola (applicant)** for **Our Lady of Good Counsel Church and Home Sweet Home Trust (owners)** for a Zoning Map Amendment from Suburban Residential One (SR-1) to Public Facilities (PF) for an approximate 9.1 acre area located at 404 Beaver Road, 430 Beaver Road, 438 Beaver Road, 11972 Skyway Drive, 11982 Skyway Drive, 11990 Skyway Drive, 11991 Skyway Drive, 11977 Skyway Drive, the property with the following Property Identification Number (PIDN): 077.00-03-007.01, and the right-of-way of Skyway Drive, Boone County, Kentucky and a Request of **Viox and Viox per Megan de Sola (applicant)** for **Our Lady of Good Counsel Church (owner)** for a Change of Concept Development Plan in a Public Facilities (PF) district for an approximate 13.8 acre area located at 472 Beaver Road, Walton, Kentucky. The request is for a zone change and change of concept development plan to allow the construction of a school building, field house, and a storage barn, use of the existing church, use of existing single-family residential dwellings for church related purposes, and the redesign of parking areas and access drives.

Staff Member, Todd Morgan, read the Committee Report, which recommended approval based upon Findings of Facts and Conditions (see Committee Report). The Committee Members present at the Committee Meeting voted unanimously to approve the request with Ms. Gulick and Mr. Harper voting in favor of the request. The applicant has signed the condition letter.

Chairman Rolfsen asked if there was anyone in the audience who wanted to speak in favor or against the request?

Mr. Justin Verst, Viox & Viox, Inc., stated that he had nothing more to add. All the conditions made sense and they are in agreement with them.

Seeing no further comment, **Ms. Gulick moved to approve the request by Resolution to the Boone County Fiscal Court and the City of Walton based upon the Committee Report and subject to the Findings of Fact and Conditions. Mr. Harper seconded the motion and it passed unanimously.**

**ZONING MAP AMENDMENT, Janet Kegley, Chairwoman, Michael Schwartz, Staff**

2. Request of **Corporex Parks of Kentucky, Inc., per Nicole Chimento and Thomas Banta (owner/developer)** for a Zoning Map Amendment from Rural Suburban (RS) district to Urban Residential Three/Planned Development (UR-3/PD) district for an approximate 8.3 acre area located at 3337, 3339, 3341, 3343, 3347, and 3351 Mineola Pike, 3340 Booneland Trail, and part of 3336 Booneland Trail, Boone County, Kentucky. The request is for a zone change to allow a multi-family residential development (this issue was deferred from August 17, 2022).

Staff Member, Michael Schwartz, read the Committee Report, which recommended approval based upon Findings of Facts and Conditions (see Committee Report). The Committee Members present at the Committee Meeting voted unanimously to approve the request. The applicant has signed the condition letter.

Chairman Rolfsen asked if there was anyone in the audience who wanted to speak in favor or against the request?

Ms. Nicole Chimento, Corporex Parks of Kentucky, Inc., stated that she was present to answer any questions. They agree with the proposed conditions. She showed the revised Concept Development Plan based on the comments made at the Public Hearing. A pool is planned for the courtyard area. The building will be 4 stories in height. Ms. Chimento stated that the Airport was okay with the maximum building height of 65 feet.

Seeing no further comment, **Mrs. Kegley moved to approve the request by Resolution to the Boone County Fiscal Court based upon the Committee Report and subject to the Findings of Fact and Conditions. Mr. Hincks seconded the motion and it passed unanimously.**

**ZONING MAP AMENDMENT, Rick Lunnemann, Chairman, Alaina Hagenseker, Staff**

3. Request of **Tanenbaums LLC, per Damian Tanenbaum (applicant/owner)** for a Zoning Map Amendment from Commercial One (C-1) to Industrial One (I-1) for an approximate 0.4 acre area located at 11568 Dixie Highway, Boone County, Kentucky. The submitted Concept Development Plan includes the property located at 11564 Dixie Highway, which is currently zoned Industrial One (I-1). The request is for a zone change to allow a fitness club, warehouse space, and retail space.

Staff Member, Alaina Hagenseker, read the Committee Report, which recommended approval based upon Findings of Facts and Conditions (see Committee Report). The Committee Members present at the Committee Meeting voted unanimously to approve the request. The applicant has signed the condition letter. She explained that she had the PowerPoint slides available to look at if a Board member wanted to see it at this time.

Chairman Rolfsen asked if there was anyone in the audience who wanted to speak in favor or against the request?

Mr. Damian Tanenbaum, applicant, stated that he owns Triple Crown Athletics. His plan is to move the gym from its current location to the proposed facility. They need the additional space for parking purposes.

Seeing no further comment, **Mr. Lunnemann moved to approve the request by Resolution to the Boone County Fiscal Court based upon the Committee Report and subject to the Findings of Fact and Conditions. Mrs. Goetting seconded the motion and it passed unanimously.**

**ZONING MAP AMENDMENT FOR A SPECIAL SIGN DISTRICT, Steve Harper, Chairman, Todd Morgan, Staff**

4. Request of **Frost Brown Todd LLC, per Tanner Nichols (applicant) for Perfetti Van Melle USA Inc, per Holly Ingram (owner)** for a Zoning Map Amendment for a Special Sign District for an approximate 25.7 acre site located at 3645 Turfway Road, Boone County, Kentucky. The request is for a Special Sign District to allow free standing and building mounted signage in an Industrial One/Planned Development/Houston-Donaldson Study Corridor Overlay (I-1/PD/HDO) district.

Staff Member, Todd Morgan, read the Committee Report, which recommended approval based upon Findings of Facts and Conditions (see Committee Report). He also referred to some revised drawings on the projector screen. The overall monument sign will be 11' 4" with a 100 square foot sign area. The banners will be 98 square feet in size (14' x7'). Each one will have a custom aluminum frame and the banner over the factory entrance has been reduced to 200 square feet (10' x 20').

The Committee Members present at the Committee Meeting voted unanimously to approve the request with Ms. Gulick and Mr. Harper voting in favor. The applicant has signed the condition letter.

Chairman Rolfsen asked if the custom aluminum frame on the banners was something new? Mr. Costello replied that the applicant mentioned it at the Public Hearing.

Chairman Rolfsen asked if there was anyone in the audience who wanted to speak in favor or against the request?

Mr. Tanner Nichols, applicant, stated that he agreed with the Committee Report.

Seeing no further comment, **Mr. Harper moved to approve the request by Resolution to the Boone County Fiscal Court based upon the Committee Report and subject to the Findings of Fact and Conditions. Mr. Patton seconded the motion and it passed unanimously.**

**ZONING MAP AMENDMENT/ CHANGE OF CONCEPT DEVELOPMENT PLAN, AND CONCEPT DEVELOPMENT PLAN, Corrin Gulick, Chairwoman, Alaina Hagenseker, Staff**

5. Request of **Akram Othman (applicant/owner)** for a Zoning Map Amendment/Change of Concept Development Plan from Suburban Residential Two (SR-2) district, Office One (O-1) district, and Commercial Two/Planned Development (C-2/PD) district to Commercial One (C-1) district for an approximate 4.8 acre area located at the southwest corner of the intersection of Oakbrook Road with Burlington Pike, and includes the property at 1655 Burlington Pike and the properties with the following Parcel Identification Numbers (PIDN's): 049.00-00-044.00, 049.00-00-044.01, and 049.00-00-041.02, Boone County, Kentucky. The request is for a zone change/change of concept plan for a retail/service/restaurant/office development.

**Mr. Patton moved to defer the request until the December 7, 2022 Business Meeting. Mrs. Steele seconded the motion and it passed unanimously. The Committee Meeting will be held on November 30, 2022 at 5:00 p.m.**

**2020 ZONING REGULATIONS UPDATE, Bob Schwenke, Chairman, Michael Schwartz, Staff**

6. Request of the **Boone County Planning Commission Long Range Planning/Comprehensive Plan Committee** to consider a series of text and map amendments to the **Boone County Zoning Regulations** and the Boone County Zoning Map as part of the 2020 Zoning Update. The proposed amendments to the text and map implement **Our Boone County Plan – Plan 2040**. This includes a waiver of the 60-day action requirement per KRS 100.211 (2)(c)(2).

Staff member, Michael Schwartz, read the Committee Report, which recommended approval based upon Findings of Fact and subject to some zoning text and map changes as a result of comments made at the September 21, 2022 Public Hearing (see Committee Report). The Committee Members present at the Committee meeting voted unanimously to approve the request. He mentioned that both the text and map changes implement the Boone County Comprehensive Plan and are consistent with KRS Chapter 100. Mr. Schwartz referred to the proposed changes outlined in the attachments from the Committee Report. Attachment A would allow short term rentals in the City of Walton. Attachment B would add regulations for data centers and would prohibit cryptocurrency mining from being allowed. Attachment C would add or keep active recreation as a permitted use in a C-4 district. Attachment D would allow schools as a conditional use in an I-1 zoning district. Again, a comment was made at the Public Hearing to allow schools. Attachment D also adds colleges and universities as a principally permitted use in an I-1 zoning district. It also would prohibit schools in an I-3 zoning district. Attachment E would allow schools as a principally permitted use in a PF zoning district. Attachment F would modify the accessory dwelling unit regulations to differentiate between accessory units within a principal structure versus one that is separate from a principal structure. There would be no additional lot size requirement if the accessory dwelling unit was located inside the principal structure. The one and a half minimum lot size requirement would only apply to an accessory dwelling unit that is freestanding or outside the principal structure. Also, as part of Attachment A is to modify the parking requirements for short term rentals. If all of the residence is being used for a short term rental, then the two additional parking spaces for the owner are not required.

In regard to the mapping issues, Mr. Schwartz referred to a PowerPoint presentation. Based upon the testimony made at the Public Hearing, the Committee recommended the changes to the following requests (see Committee Report). Map ID 120 was recommended for approval because it would bring all of the buildings on the site into the same zoning area district. Map ID 75 & 101 were recommended to be denied as the property owner (The Boone Conservancy) was not interested at this time. Map ID 105 was recommended to be denied on the basis that the proposed RSE or RS was not consistent with the Future Land Use Map. The existing zoning of A-2 is appropriate at this time. Map ID 106 was recommended to be denied because it was not consistent with the Comprehensive Plan. Agricultural activities can be conducted within the I-1 uses under the KRS 100 Statutes. Map ID 109 was recommended to be denied since the proposed I-1 district is not consistent with the Comprehensive Plan, which designates the site as Urban Density Residential (RD) uses. Map ID 113 was recommended for denial based upon the recommendations of the Comprehensive Plan. Map ID 116 was recommended for denial since the Airport (A) district would not be consistent with the proposed Business Park (BP) uses as well as the proposed A zoning district on the north side of I-275. The A zoning is currently on the south side of I-275. Map ID 119 was recommended to be denied because the proposed I-1 is not consistent with the Comprehensive Plan which recommends residential uses. Map ID 10 was recommended to be rezoned to RSE from C-2 so that the entire 2 lots are zoned RSE. It is more in line with the Future Land Use Map of the RD land use.

**Mr. Schwenke moved to approve the request (2020 Zoning Update) by Resolution to the Boone County Fiscal Court and the Cities of Florence, Union and Walton based upon the Committee Report including its Attachments and Findings of Fact. It includes all text and map changes as presented. Mrs. Kegley seconded the motion.**

Mr. Schwenke expressed thanks to Mr. Schwartz and the Staff on completing the work. It was a huge endeavor. Chairman Rolfsen agreed that it was a tremendous amount of work. He complimented the Staff.

Mr. Wilson reminded everyone that the motion is in the form of a Resolution that goes to the Fiscal Court and the legislative units for their zoning function. They take final action.

**Chairman Rolfsen asked for a vote on the original motion made by Mr. Schwenke and seconded by Mrs. Kegley. The motion passed unanimously.**

**TECHNICAL/DESIGN REVIEW, Rick Lunnemann, Chairman, Michael Schwartz, Staff**

7. Gateway Rehabilitation Center – 5940 Merchants Street

**Mr. Patton moved to defer the request until the December 7, 2022 Business Meeting. Mrs. Steele seconded the motion and it passed unanimously.**

**TECHNICAL/DESIGN REVIEW, Rick Lunnemann, Chairman, Michael Schwartz, Staff**

8. Ashley Home Store – 8040 Burlington Pike

Staff Member, Michael Schwartz, referred to a PowerPoint presentation. The request is to modify the colors and the signage on the Ashley Home Store. The request is to have blue, gray and charcoal colors for 6 building mounted signs on the front of the building. Another sign would be placed in the loading dock. This sign replaces one that is already there. The signage totals 779 square feet. Mr. Costello referred to the rendering and pointed out that the rendering actually depicts a darker blue color. That will be the actual color. The Technical/Design Review Committee met prior to the Business Meeting and voted unanimously to approve the request.

**Mr. Lunnemann moved to approve the request based upon the Technical/Design Review Committee recommendation as presented by Mr. Schwartz. Mrs. Clark seconded the motion and it passed unanimously.**

**TECHNICAL/DESIGN REVIEW, Rick Lunnemann, Chairman, Michael Schwartz, Staff**

9. Cougar Point Townhomes – 3215 Cougar Path

Staff Member, Michael Schwartz, referred to a PowerPoint presentation. As part of the original submitted and approved plan by the Planning Commission and Fiscal Court, there was a condition that the applicant was required to submit architectural drawings to the Technical/Design Review Committee for review and approval. Seventeen dwelling units are proposed along with an office building. No access from the current curb cut serving the church will be allowed. A separate curb cut off Cougar Path will be constructed. The buildings will be all brick. He showed renderings of the residential and office buildings. Brick and stone materials are proposed along with a pitched roof. Mr. Schwartz noted that a Major Site Plan for the project was submitted for review. He will check on the type of units and number of bedrooms as requested by Chairman Rolfsen. The Technical/Design Review Committee met prior to the Business Meeting and voted unanimously to approve the request.

**Mr. Lunnemann moved to approve the request based upon the Technical/Design Review Committee recommendation as presented by Mr. Schwartz. Mrs. Goetting seconded the motion and it passed unanimously.**

**TECHNICAL/DESIGN REVIEW, Rick Lunnemann, Chairman, Todd Morgan, Staff**

10. Turfway Gaming – 7500 Turfway Road

Staff Member, Todd Morgan, referred to a PowerPoint presentation. The first part of the request deals with the existing jockey building and a new barn. The jockey building will have new brown EIFS and the new barn will be brown metal. The new barn is 30'9" x 61' 3". The second part of the request will be tabled until December 7, 2022. It involves the screening of the RTUs on the roof. Originally, the units were reviewed in May, 2022 but they are much more visible today. Mr. Morgan showed pictures of them. The Committee recommendation is only to approve the first part. The Technical/Design Review Committee met prior to the Business Meeting and voted unanimously to approve the request.

**Mr. Lunnemann moved to approve Part 1 (the design and color of the Paddock area only) of the request based upon the Technical/Design Review Committee recommendation as presented by Mr. Morgan and to defer Part 2 (screening of the rooftop units) until December 7, 2022. Mr. Szurlinski seconded the motion and it passed unanimously.**

**NEW BUSINESS**

**ZONING MAP AMENDMENT, Michael Schwartz, Staff**

11. Request of **Jake's Farm Real Estate Development Company, LLC (applicant)** for **Jake's Farm Real Estate Development Company, LLC and Henry L. Fedders Jr. (owners)** for a Zoning Map Amendment from Agricultural Estate (A-2) to Suburban Residential One/Planned Development (SR-1/PD) for an approximate 36.74 acre area located at the southeast corner of the intersection of Richwood Road with Schmidt Lane, including the properties at 731, 733, and 735 Richwood Road, 11704 Schmidt Lane, and the properties having Parcel Identification Numbers (PIDN) of 065.01-02-001.00 and 065.01-02-007.00. The request is for a zone change to allow 160 multi-family residential units within three (3) buildings, 55 attached single-family residential units within nine (9) buildings, 5 detached single-family residential dwellings, and community amenity areas (Deferred from November 2, 2022).

**CHANGE IN AN APPROVED CONCEPT DEVELOPMENT PLAN, Michael Schwartz, Staff**

12. Request of **Gregory P. Tilsley (applicant)** for **Graeters Properties Limited (owner)** for a Change in an Approved Concept Development Plan in a Commercial Two/Planned Development (C-2/PD) district for an approximate 5.7 acre area located at 8905 US 42, Union, Kentucky. The request is for a Change in an Approved Concept Development Plan to allow two additional eating and drinking establishments, a central plaza area, and interconnected parking facilities.

**CHANGE IN AN APPROVED CONCEPT DEVELOPMENT PLAN, Todd Morgan, Staff**

13. Request of **Viox and Viox, Inc., per Michelle Bollman (applicant)** for **Domaschko Properties, LLC (owner)** for a Change in an Approved Concept

Development Plan in an Industrial One (I-1) district for an approximate 6.7 acre area located at 11061 Dixie Highway, Boone County, Kentucky. The request is for a Change in an Approved Concept Development Plan to allow the construction of a 5,000 square foot building with outdoor truck/trailer parking and an expansion of the off-street parking lot.

**ZONING MAP AMENDMENT FOR A SPECIAL SIGN DISTRICT, Todd Morgan, Staff**

14. Request of **Vision Engineering, LLC, per Jihad Hillany (applicant) for City of Florence (owner)** for a Zoning Map Amendment for a Special Sign District for an approximate 196.5 acre area located at 7500 Turfway Road, Florence, Kentucky. The request is for an amendment to an existing Special Sign District in a Recreation/Planned Development/Houston-Donaldson Study Corridor Overlay (R/PD/GDO) district to allow for an electronic message board/screen.

**Mr. Patton moved to schedule the Public Hearing for Items #12, #13 and #14 on December 7, 2022 at 7:30p.m. in the Fiscal Courtroom and Item #11 on December 21, 2022 at 7:00 p.m. in the Fiscal Courtroom. Mrs. Kegley seconded the motion and it passed unanimously.**

**H. Executive Director's Report: Kevin P. Costello**

Mr. Costello referred to his October 26, 2022 Memos. The first involves extending the contract of our current engineer, Jon Brown. He is still pursuing candidates to replace Mr. Brown. **Mr. Patton moved to authorize the Executive Director to extend the contract of Mr. Brown for one month from November 1, 2022 to December 1, 2022 with the same terms. Mrs. Clark seconded the motion and it passed unanimously.** The second item is related to extending the contract with NearMap aerial photography services to the Boone County Planning Commission for one year. **Mr. Patton moved to authorize the Executive Director to extend the contract with Near Map for one year at an amount not to exceed \$20,000 based upon the terms outlined in the memo. Mr. Schwenke seconded the motion and it passed unanimously.**

**I. Committee Reports:**

- Airport

Mr. Bessler reported that the Committee has a Zoom meeting with the Airport tomorrow at noon.

- Administrative/Personnel (Tom Szurlinski)  
No Report
- Enforcement (Tom Szurlinski)  
No Report
- Long-Range Planning/Comprehensive Plan (Bob Schwenke)  
No Report
- Technical/Design Review (Rick Lunnemann)  
No Report

- Executive

Chairman Rolfsen announced that the Board will honor Don McMillian for his 40 years of service to the Planning Commission on November 16, 2022 at 5:30 p.m. in the Planning Commission office. More information will be sent out regarding the event.

J. **Chairman's Report:** Charlie Rolfsen  
No Report

K. **OKI Report:** Kim Patton  
No Report

L. **Other:**

M. **Adjournment:**

There being no further business to come before the Planning Commission, **Mrs. Steele moved to adjourn the meeting. Mr. Vaught seconded the motion and it passed unanimously. The meeting was adjourned at 7:50 P.M.**

APPROVED



Charlie Rolfsen  
Charlie Rolfsen  
Chairman

Attest:



Kevin P. Costello, AICP  
Kevin P. Costello, AICP  
Executive Director

# **SUPPORTING INFORMATION**

Our Lady of the Assumption Boys Academy  
Concept Development Plan

7. Proposed Building Intensities:

**Boys School:**

The proposed school will consist of two floors - a main level and a lower level that overlap each other. The bottom floor contains the gym and cafeteria and would be built into the hillside, so the overall footprint is approximately 45,500 s.f. including a future auditorium and future classrooms.

The square footage breakdown per floor is as follows:

- Main floor = approx. 25,300 s.f. (if future two classrooms added, becomes approx. 28,000 s.f.)
- Lower level = approx. 33,600 s.f. (if future one classroom added, becomes approx. 35,000 s.f.)

\*63,000 s.f. building/45,500 s.f. land = 1.38 FAR

\*The total square footage of school building included in the PF zone (as part of the Concept Development Plan application) is approximately 22,000 sf.

**Recreation Building (at bottom of hill):**

The proposed recreation building will consist of two floors. The square footage breakdown per floor is as follows:

- Main floor = approx. 11,200 s.f.
- Mezzanine level = 3,400 s.f.

\*\*14,600 s.f. building/11,200 s.f. land = 1.30 FAR

\*\*The total square footage of the recreation building included in the PF zone (as part of the Concept Development Plan application) is approximately 5,100 s.f.

**Barn/Storage:**

The proposed barn/storage facility will consist of one level = 1,920 s.f.

\*\*\*1,920 s.f. building/1,920 s.f. land = 1 FAR

\*\*\* The total square footage of the barn/storage building included in the PF zone (as part of the Concept Development Plan application) is approximately 960 s.f.

Our Lady of the Assumption Boys Academy  
Concept Development Plan

**Legal Description:**

Situate in Walton, Boone County, Commonwealth of Kentucky and more particularly described as follows:

Box 472 Beaver Road, Walton, Boone County, Kentucky 41094. Group 2077 A, lying and being in the State of Kentucky and County of Boone, located on the northeast side of Beaver Grade Road near the City of Walton, and is described thus: BEGINNING at a PK Nail in the center of Beaver Grade Road, a corner with the extended line of Lot #5, Sturgeon-Wood Subdivision; thence with the center of said road for nine calls: N 68-13-55 W 72.31 feet to a PK Nail; thence, N 64-42-25 W 90.00 feet to a PK Nail; thence, N 57-43-55 W 75.0 feet to a PK Nail; thence, N 46-44-25 W 75.0 feet to a PK Nail; thence, N 42-11-25 W 123.0 feet to a PK Nail; thence, N 53-39-25 W 52.0 feet to a PK Nail; thence, N 66-58-25 W 50.0 feet to a PK Nail; thence, N 73-23-25 W 75.0 feet to a PK Nail; thence, N 81-31-55 W 105.1 feet to a PK Nail; thence, with the west line N 36-30 E 1336.96 feet to a stake in the right-of-way of the I-71 off ramp to I-75 south; thence with said ramp for two calls: S 40-33-26 E 326.81 feet; thence, S 39-38-56 E 29.74 feet to a stake in the line of Lot #8, Sturgeon-Wood Subdivision; thence, with said lot S 26-16-49 W 504.03 feet; thence, with Lots #8, #7, #6 and #5 S 15-41-33 W 705.47 feet to the beginning and containing 13.7961 acres more or less.

Our Lady of the Assumption Boys Academy  
Zoning Map Amendment

**Legal Description:**

Located in Boone County, Kentucky located on the north side of the Beaver Grade Road and the east and west side of Skyway drive and being Lots 1-10 of the Chester Sturgeon and John Wood Subdivision recorded in Plat Book 6, page 48, in the office of the Boone County Clerk in Burlington, Kentucky.

Our Lady of the Assumption Boys Academy  
Zoning Map Amendment

7. Proposed Building Intensities:

**Boys School:**

The proposed school will consist of two floors - a main level and a lower level that overlap each other. The bottom floor contains the gym and cafeteria and would be built into the hillside, so the overall footprint is approximately 45,500 s.f. including a future auditorium and future classrooms.

The square footage breakdown per floor is as follows:

- Main floor = approx. 25,300 s.f. (if future two classrooms added, becomes approx. 28,000 s.f.)
- Lower level = approx. 33,600 s.f. (if future one classroom added, becomes approx. 35,000 s.f.)

\*63,000 s.f. building/45,500 s.f. land = 1.38 FAR

\*The total square footage of school building included in the SR-1 zone (as part of the Zoning Map Amendment application) is approximately 41,000 sf.

**Recreation Building (at bottom of hill):**

The proposed recreation building will consist of two floors. The square footage breakdown per floor is as follows:

- Main floor = approx. 11,200 s.f.
- Mezzanine level = 3,400 s.f.

\*\*14,600 s.f. building/11,200 s.f. land = 1.30 FAR

\*\*The total square footage of the recreation building included in the SR-1 zone (as part of the Zoning Map Amendment application) is approximately 9,500 s.f.

**Barn/Storage:**

The proposed barn/storage facility will consist of one level = 1,920 s.f.

\*\*\*1,920 s.f. building/1,920 s.f. land = 1 FAR

\*\*\* The total square footage of the barn/storage building included in the SR-1 zone (as part of the Zoning Map Amendment application) is approximately 960 s.f.

Zoning Map Amendment  
Our Lady of the Assumption Boys Academy

12. Deed Book                      Page Number                      Group Number

(All lots part of Sturgeon & Woods Subdivision in **Group Number 851**)

438 Beaver Road (Lot 5 & Part of Lot 6) = DB 943 / PN 270

430 Beaver Road (Lot 4) = DB 982 / PN 25

11991 Skyway Drive (Lot 3) = DB 1080 / PN 18

11977 Skyway Drive = DB 1178 / PN 794

11972 Skyway Drive (Lots 8 & 9) = DB 1126 / PN 19

11982 Skyway Drive (Lot 10) = DB 1181 / PN 399

11990 Skyway Drive (Lot 2) = DB 1182 / PN 238

404 Beaver Road (Lot 1) = DB 1182 / PN 234

Skyway Drive (Lot 7) = DB 1126/PN 22



# BOONE COUNTY PLANNING COMMISSION

[www.boonecountyky.org/pc](http://www.boonecountyky.org/pc)  
[www.boonecountygis.com](http://www.boonecountygis.com)

Boone County Administration Building  
2950 Washington Street, Room 317  
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Burlington, KY 41005

Phone (859) 334-2196; Fax (859) 334-2264  
[plancom@boonecountyky.org](mailto:plancom@boonecountyky.org)

October 27, 2022

Viox & Viox, Inc.  
c/o – Mrs. Megan de Sola  
466 Erlanger Road  
Erlanger, KY 41018

RE: Request of **Viox and Viox, per Megan de Sola (applicant)** for **Our Lady of Good Counsel Church and Home Sweet Home Trust (owners)** for a Zoning Map Amendment from Suburban Residential One (SR-1) to Public Facilities (PF) for an approximate 9.1 acre area located at 404 Beaver Road, 430 Beaver Road, 438 Beaver Road, 11972 Skyway Drive, 11982 Skyway Drive, 11990 Skyway Drive, 11991 Skyway Drive, 11977 Skyway Drive, the property with the following Property Identification Number (PIDN): 077.00-03-007.01, and the right-of-way of Skyway Drive, Boone County, Kentucky and a Request of **Viox and Viox per Megan de Sola (applicant)** for **Our Lady of Good Counsel Church (owner)** for a Change of Concept Development Plan in a Public Facilities (PF) district for an approximate 13.8 acre area located at 472 Beaver Road, Walton, Kentucky. The request is for a zone change and change of concept development plan to allow the construction of a school building, field house, and a storage barn, use of the existing church, use of existing single-family residential dwellings for church related purposes, and the redesign of parking areas and access drives.

Dear Mrs. de Sola,

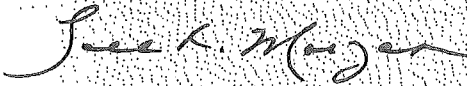
The following represents the recommended conditions of approval for the above referenced application as discussed by the Planning Commission's Zone Change Committee at their October 26, 2022 meeting. The property owner will need to sign the appropriate line at the end of this letter if he is in agreement with the conditions. Please return the original letter to the Planning Commission office by November 1, 2022.

## CONDITIONS

1. The approval shall be based on the submitted Concept Development Plans.
2. The maximum enrollment of the school shall be 360 students.
3. The architecture of the proposed school shall correlate to the church at 472 Beaver Road and school at 479 Beaver Road.
4. Kentucky Transportation Cabinet shall approve the Traffic Impact Study and determine the number of access points and road improvements that are required.
5. The school starting time shall be staggered with the school across the street to reduce traffic impacts.

6. The four houses (4) shown on the Concept Plan can be converted to church uses. The construction of any new buildings or recreational fields in this part of the site shall be reviewed through the Change in Approved Concept Development Plan application process.
7. The property owner shall contact Kentucky Transportation Cabinet and pursue the approval of school zone signs in the Beaver Road right-of-way. The applicant shall provide a letter or email to Boone County Planning Commission documenting that they have pursued approval of these signs. This letter or email shall be furnished to the Planning Commission at the time the Major Site Plan application is submitted for review.
8. The parking lot near the ballfield can remain gravel until such time that the field is used by the public or school/recreational leagues.
9. The ballfield can be lit with the approval of a photometric plan that complies with the Boone County Zoning Regulations.
10. Daycares or pre-schools shall not operate from the site.
11. The church stage and roof cover shall only be permitted on site during and immediately before and after the church festival.
12. A consolidation plat shall be required for all properties which do not have legal frontage after Skyway Drive is vacated.

Sincerely,




Todd K. Morgan, AICP  
Senior Planner

TKM/ss

AGREEMENT

I, Jim Brueggemann, hereby agree to the conditions of approval for the above referenced applications.

  
Mr. Jim Brueggemann  
Our Lady of Good Counsel Church  
Home Sweet Home Trust

10-27-2022  
Date

5

**SPECIAL WARRANTY DEED**

THIS SPECIAL WARRANTY DEED is made and entered into as of the 27<sup>th</sup> day of December, 2002, by and between: (i) **BERNARD BRUEGGEMANN, JIM BRUEGGEMANN, JOHN BRUEGGEMANN AND BERNIE KUNKEL, CO-TRUSTEES OF THE BAVARIAN FOUNDATION (T) UNDER AGREEMENT DATED OCTOBER 30, 1997, AS AMENDED**, a charitable trust organized under the laws of the Commonwealth of Kentucky, having an address of 12764 McCoy Fork Road, Walton, Boone County, Kentucky 41094-9554 ("Grantor"), and (ii) **JIM BRUEGGEMANN, MARIA BRUEGGEMANN, JOHN BRUEGGEMANN AND BERNIE KUNKEL, CO-TRUSTEES OF OUR LADY OF GOOD COUNSEL CHURCH, CREATED UNDER DECLARATION OF TRUST DATED OCTOBER 31, 1997, AS AMENDED**, a church organized under the laws of the Commonwealth of Kentucky, having an address of 12665 McCoy Fork Road, Walton, Boone County, Kentucky 41094-9554 ("Grantee").

**WITNESSETH:**

That for and in consideration of the full sum of \$1.00, the receipt and sufficiency of which is hereby acknowledged, and for no other cash consideration, Grantor does hereby convey unto Grantee, in fee simple, with covenant of SPECIAL WARRANTY, certain real property, together with all improvements located thereon and all appurtenances thereunto belonging, situated in Boone County, Kentucky (the "Property"), more fully described as follows:

Group No.: 2077A

Situate in Walton, Boone County, Commonwealth of Kentucky and more particularly described as follows:

Box 473 Beaver Road, Walton, Boone County, Kentucky 41094. Group 2077 A, lying and being in the State of Kentucky and County of Boone, located on the northeast side of Beaver Grade Road near the City of Walton, and is described thus: BEGINNING at a PK Nail in the center of Beaver Grade Road, a corner with the extended line of Lot #5, Sturgeon-Wood Subdivision; thence with the center of said road for nine calls: N 68-13-55 W 72.31 feet to a PK Nail; thence, N 64-42-25 W 90.0 feet to a PK Nail; thence, N 57-43-55 W 75.0 feet to a PK Nail; thence, N 46-44-25 W 75.0 feet to a PK nail; thence, N 42-11-25 W 123.0 feet to a PK Nail; thence N 53-39-25 W 50.0 feet to a PK Nail; thence, N 66-58-25 W 50.0 feet to a PK Nail; thence, N 73-23-25 W 75.0 feet to a PK Nail; thence N 81-31-55 W 105.1 feet to a PK Nail; thence, with the west line N 36-30 E 1336.96 feet to a stake in the right-of-way of the I-71 off ramp to I-75 south; thence with said ramp for two calls: S 40-33-26 E 326.81 feet; thence, S 39-38-56 E 29.74 feet to a stake in the line of Lot #8, Sturgeon-Wood Subdivision; thence, with said lot S 26-16-49 W 504.03 feet; thence, with Lots #8, #7, #6 and #5 S 15-41-33 W 705.47 feet to the beginning and containing 13.7961 acres more or less.

Less and Except: That portion of the real estate which was conveyed in Highway Deed Book 16 page 295 of the Boone County clerk's records at Burlington, Kentucky.

Being the same property conveyed to Grantor by Deed dated June 13, 2002, recorded contemporaneously herewith in Deed Book 851, Page 57-60 in the Boone County Court Clerk's Office.

Grantor  
RECORDED

*Bernie Kunkel*

**BERNIE KUNKEL, CO-TRUSTEE OF THE  
BAVARIAN FOUNDATION (T), UNDER  
AGREEMENT DATED OCTOBER 30, 1997,  
AS AMENDED**

("Grantor")

*Jim Brueggemann*

**JIM BRUEGGEMANN, CO-TRUSTEE OF  
OUR LADY OF GOOD COUNSEL CHURCH,  
CREATED UNDER DECLARATION OF TRUST  
DATED OCTOBER 31, 1997, AS AMENDED**

*Maria Brueggemann*

**MARIA BRUEGGEMANN, CO-TRUSTEE OF OUR  
LADY OF GOOD COUNSEL CHURCH, CREATED  
UNDER DECLARATION OF TRUST DATED OCTOBER  
31, 1997, AS AMENDED**

*John Brueggemann*

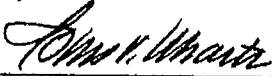
**JOHN BRUEGGEMANN, CO-TRUSTEE OF OUR LADY  
OF GOOD COUNSEL CHURCH, CREATED UNDER  
DECLARATION OF TRUST DATED OCTOBER 31,  
1997, AS AMENDED**

*Bernie Kunkel*

**BERNIE KUNKEL, CO-TRUSTEE OF OUR LADY OF  
GOOD COUNSEL CHURCH, CREATED UNDER  
DECLARATION OF TRUST DATED OCTOBER 31,  
1997, AS AMENDED**

("Grantee")

The foregoing instrument was prepared  
by and should be returned to:



John V. Wharton, Esq.  
Greenebaum Doll & McDonald PLLC  
50 East RiverCenter Boulevard, Suite 1800  
Covington, Kentucky 41011  
(859) 655-4207

cov.554718.1 Word

5

BOONE COUNTY  
D851 PG 65

DOCUMENT NO: 168497  
RECORDED ON: APRIL 02, 2003 09:27:09AM  
TOTAL FEES: \$16.00  
TRANSFER TAX: \$345.00  
GROUP : 2077A  
COUNTY CLERK: MARILYN K ROUSE  
COUNTY: BOONE COUNTY CLERK  
DEPUTY CLERK: STACY

BOOK D851 PAGES 61 - 65

3  
AOL

AFTER RECORDING PLEASE RETURN TO:  
Homestead Title Agency, Ltd.  
2500 Chamber Center Drive, Ste. 103  
Ft. Mitchell, KY 41017

RETURN TO:

WARRANTY DEED

**KNOW ALL MEN BY THESE PRESENTS:**

That the Grantors, **EDDIE WAYNE FOLEY and BARBARA J. FOLEY**, husband and wife, whose mailing address is 11977 Skyway Drive, Walton, Kentucky 41094, for and in consideration of the sum of **TWENTY THOUSAND (\$20,000.00) DOLLARS**, and other good and valuable consideration, the receipt whereof is hereby acknowledged, do hereby bargain, sell and convey to the Grantee, **OUR LADY OF GOOD COUNSEL CHURCH**, an unincorporated association, acting by and through its Trustee, Jim Brueggemann, whose mailing address and in-care-of tax mailing address for current tax year is 12764 McCoys Fork Road, Walton, Kentucky 41094, its assigns forever, the following described real estate, lying and being in Boone County, Kentucky, to-wit:

PIDN: 077.00-03-007.01

GROUP NO.: 857

Return deed to: Our Lady of Good Counsel Church  
12764 McCoys Fork Road  
Walton, Kentucky 41094

ADDRESS OF PROPERTY: 11972 Skyway Drive (vacant lot)  
Walton, Kentucky 41094

DESCRIPTION OF PROPERTY:

Being all of Lot No. Seven (7) of the Chester Sturgeon and John Wood Subdivision as shown on plat recorded in Plat Book 6, Page 48, of the Boone County Clerk's records at Burlington, Kentucky.

Subject to set back line as shown on recorded plat.



13K  
BOONE COUNTY  
D1178 PG794

DOCUMENT NO: 855735  
RECORDED: December 08, 2021 10:15:00 AM  
TOTAL FEES: \$50.00 TRANSFER TAX: \$180.00  
COUNTY CLERK: JUSTIN CRIGLER  
DEPUTY CLERK: MICHELLE EICKHOFF  
COUNTY: BOONE COUNTY  
BOOK: D1178 PAGES: 794 - 797  
GROUP ID: 857

**RETURN TO:**  
After Recording Please Return To:  
Homestead Title Agency  
3940 Olympic Blvd.  
Erlanger, KY 41018

**GENERAL WARRANTY DEED**

THIS GENERAL WARRANTY DEED is made and entered into this 30<sup>th</sup> day of NOVEMBER, 2021, by and between **JIM BRUEGGEMANN, AS TRUSTEE OF HOME SWEET HOME TRUST**, having a mailing address of 13469 Poole Road, Verona, KY 41092 ("Grantor"), and **JIM BRUEGGEMANN, AS TRUSTEE OF THE OUR LADY OF GOOD COUNSEL CHURCH, U/A/D OCTOBER 31, 1997, AS AMENDED OR MODIFIED**, having a mailing address of 13469 Poole Road, Verona, KY 41092 ("Grantee").

Pursuant to KRS 382.135(1)(c), the in-care-of address to which the current and future property tax bills may be sent to is 12665 McCoy Fork Road, Walton, KY 41094.

WITNESSETH:

That for and in consideration of the sum of \$180,000.00, the receipt and sufficiency of which is hereby acknowledged, the Grantor does hereby bargain, sell, and convey in fee simple to Grantee and his successor Trustee(s) and assigns forever, the following described real estate:

SEE THE LEGAL DESCRIPTION IN ATTACHED EXHIBIT A INCORPORATED HEREIN BY REFERENCE

Property Address: 11977 Skyway Drive, Walton, KY 41094

Prior Deed Reference: Being all of the same property conveyed to Grantor by deed recorded on May 17, 2019, in Deed Book 1126, Page 25 in the records of the Boone County Clerk's Office in Burlington, Kentucky.

THE REAL ESTATE HEREIN CONVEYED IS SUBJECT TO: all covenants, restrictions, conditions, easements, and limitations of record, real estate taxes and assessments due and payable after the date hereof, legal highways and streets, and building and zoning laws, codes and regulations.

TO HAVE AND TO HOLD the above described real estate, together with all the appurtenances thereunto belonging, unto the Grantee in fee simple forever, with covenants of general warranty. The Grantee joins in the execution of this deed for the purpose of certifying the consideration.

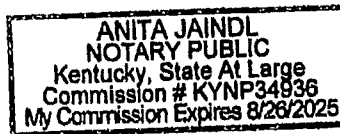
BOONE COUNTY  
D1178 PG796

COMMONWEALTH OF KENTUCKY, COUNTY OF BOONE: SS

The foregoing instrument including the Consideration Certificate was SUBSCRIBED, SWORN TO and ACKNOWLEDGED before me this 30<sup>th</sup> day of NOVEMBER, 2021, by JIM BRUEGGEMANN, TRUSTEE OF THE OUR LADY OF GOOD COUNSEL CHURCH, U/A/D OCTOBER 31, 1997, as amended or modified.

Commission Expires: 8/26/25

Anita Jaindl  
Notary Public



This instrument prepared by  
and after recording return to:

Stephen P. Kenkel  
Stephen P. Kenkel, Esq.  
3940 Olympic Blvd., Suite 530  
Erlanger, KY 41018  
Phone (859) 578-2703

**GENERAL WARRANTY DEED**

THIS DEED, made and entered into this 22nd day of October, 2007, by and between DARYL MCELROY and JEANNIE MCELROY, his wife, having a mailing address of 1713 Goldie Lane, Independence, Kentucky 41051, and MELINDA HOPPENJANS and MICHAEL HOPPENJANS, her husband, having a mailing address of 11787 Suncrest Drive, ~~Florence~~ <sup>Walton</sup>, Kentucky ~~41042~~ <sup>41084</sup>, as grantors (collectively "**Grantors**"), Jim Brueggemann, Co-Trustee of the OUR LADY OF GOOD COUNSEL CHURCH U/A/D OCTOBER 31, 1997, AS AMENDED, having a mailing address of c/o 12665 McCoy Fork Road, Walton, Kentucky 41094-9554 ("**Grantee**").

WITNESSETH:

That for and in consideration of the sum of One Hundred Sixty-Five Thousand Dollars (\$165,000.00), and other good and valuable consideration, the receipt of which is hereby acknowledged, the Grantors have bargained and sold and by these presents do bargain, sell and convey in fee simple unto the Grantee the following described real estate:

**SEE ATTACHED EXHIBIT A INCORPORATED HEREIN BY REFERENCE.**

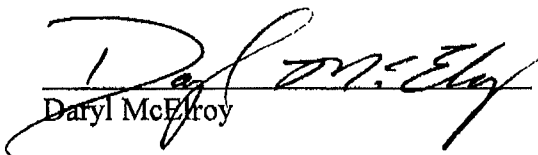
Being the same property previously conveyed to Daryl McElroy, a married person, and Melinda Hoppenjans, a married person, by deed dated October 22, 2007 and recorded in Deed Book D943, page 267, of the Boone County Clerk's records at Burlington, Kentucky.

TO HAVE AND TO HOLD the above described real estate, together with all the appurtenances thereunto belonging, unto the Grantee in fee simple forever, with Covenant of General Warranty, subject to (i) applicable zoning ordinances; (ii) all covenants, conditions, limitations, rights, easements and restrictions of record; (iii) legal highways; and (iv) taxes and assessments due and payable in 2007 and thereafter which taxes the Grantee assumes and agrees to pay.

The parties hereto do hereby certify that the above-stated consideration is true and is the full consideration paid for the real estate and that the real estate has an estimated fair cash value of \$165,000. The Grantee joins in this deed for the sole purpose of certifying the consideration and the estimated fair cash value.

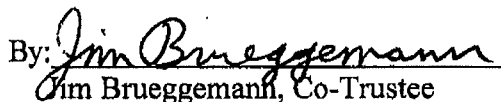
IN TESTIMONY WHEREOF, witness the signatures of the parties hereto this the date first above written.

**GRANTORS:**

  
Daryl McElroy

**GRANTEE:**

Our Lady of Good Counsel Church  
u/a/d October 31, 1997, as amended

By:   
Jim Brueggemann, Co-Trustee

**EXHIBIT A**

**Street Address: 438 Beaver Road, Walton, Kentucky 41094**

**Group: 851**

**PIDN: 077.00-03-005.00**

**Legal Description:**

Parcel I:

Lying and being in Boone County, Kentucky, near the City of Walton, and being Lot No. Five (5) of Chester Sturgeon and John Wood Subdivision as shown on plat of record in Plat Book 6, page 48, of the Boone County records at Burlington, Kentucky.

Parcel II:

A parcel of land lying near the northeasterly side of Beaver Grade Road in Walton, Boone County, Kentucky and being more particularly described as follows:

BEGINNING at a point, said point being the most northeasterly corner of Lot 5 of the Chester Sturgeon and John Wood Subdivision, and running thence:

N 21-00 E, a distance of 80.46 feet, to a point, thence  
N 69-00 W, a distance of 105.92 feet to a point, thence  
S 15-48 W, a distance of 80.8 feet, to a point, thence  
S 69-00 E, a distance of 98.6 feet, to the place of beginning,  
and containing 0.19 acres, more or less.

The above description of property was prepared by William R. Viox, P.E., KY Reg. No. 9209, Kentucky Land Surveyor No. 1781 on June 10, 1986

1899

# RETURN TO:

AFTER RECORDING PLEASE RETURN TO:  
HOMESTEAD TITLE AGENCY, LTD:  
2500 CHAMBER CENTER DRIVE, STE. 103  
FT. MITCHELL, KY 41017

## GENERAL WARRANTY DEED

**KNOW ALL MEN BY THESE PRESENTS:** That Paul H. Gamm and Lee Ann Gamm, husband and wife ("Grantors"), for and in consideration of \$80,000.00 paid by Jim Brueggemann, Trustee of the Home Sweet Home Trust ("Grantee"), the receipt of which consideration is hereby acknowledged, do hereby bargain, sell and convey in fee simple and with covenants of general warranty to Grantee, its successors and assigns forever, the following described real estate:

**SEE EXHIBIT "A" ATTACHED HERETO AND INCORPORATED BY REFERENCE HEREIN**

Grantors' Mailing Address: 929 Riva Ridge Ct Union Ky 41091

Grantee's Mailing Address: 12764 McCoys Fork Road, Walton, KY 41094

Transfer year taxes addressed in care of: Jim Brueggemann, Trustee of the Home Sweet Home Trust, 12764 McCoys Fork Road, Walton, KY 41094

Being all of the property conveyed to the Grantor herein by deed recorded at Deed Book 1066, Page 278, Boone County Clerk's Office in Burlington, Kentucky. ✓

Together with all the privileges and appurtenances to the same belonging.

TO HAVE AND TO HOLD the same to the above-named Grantee in the manner aforesaid, and the Grantors hereby covenanting with the Grantee, its successors and assigns, that the title so conveyed is **CLEAR, FREE AND UNENCUMBERED**, and that Grantors will **WARRANT AND SHALL DEFEND** the same against all legal claims whatsoever except for all taxes accruing hereafter which Grantee assumes and agrees to pay.

Provided, however, that the property is conveyed subject to all public roads, and all valid and existing conditions, restrictions, covenants, easements, and reservations as may be found in the record chain of title.

Pursuant to KRS 382.135, Grantors and Grantee hereby certify, under oath, that the consideration reflected in this deed is the full consideration paid for the property and Grantee executes this deed for the sole purpose of making this certificate about consideration.

Grantee:

HOME SWEET HOME TRUST

By: Jim Brueggemann  
Jim Brueggemann, Trustee

State of Kentucky, County of Boone : SS

The foregoing instrument was subscribed, sworn to and acknowledged before me this 26<sup>th</sup> day of October, 2016, by the Grantee, Jim Brueggemann, Trustee of the Home Sweet Home Trust.

Commission Expires: 8.22.2017

J Edwards  
Notary Public

JENNIFER EDWARDS  
NOTARY PUBLIC  
Kentucky, State At Large  
My Commission Expires 8/22/2017  
I.D. # 495801

This Instrument prepared by:

Stephen P. Kenkel

Stephen P. Kenkel, Attorney at Law  
2500 Chamber Center Drive, Ste. 103  
Ft. Mitchell, KY 41017

AFTER RECORDING, PLEASE RETURN TO:  
HOMESTEAD TITLE AGENCY, LP  
3940 OLYMPIC BLVD., SUITE 530  
ERLANGER, KY 41018

**GENERAL WARRANTY DEED**

KNOW ALL MEN BY THESE PRESENTS:

This General Warranty Deed is by and between That **Robert Rosenacker and Sherri Rosenacker, husband and wife**, (hereinafter "Grantors"), and **Jim Brueggemann, Trustee of the Home Sweet Home Trust** (hereinafter "Grantee").

For the consideration recited below, the receipt and sufficiency of which is hereby acknowledged, Grantors do hereby bargain, sell and convey in fee simple and with covenants of general warranty to the Grantee, its successor Trustees and assigns forever, the following described real property:

**SEE EXHIBIT "A" ATTACHED HERETO AND INCORPORATED BY REFERENCE HEREIN**

Grantors' Mailing Address: 11990 Skyway Drive, Walton, KY 41094.

Property Street Address: 11990 Skyway Drive, Walton, KY 41094

Grantee's Mailing Address and Transfer year taxes addressed in care of: Home Sweet Home Trust -  
12764 McCoys Fork Road, Walton, KY 41094

Being the same property conveyed to Robert Rosenacker and Sherri Rosenacker, husband and wife, recorded on 07/13/2006 at Deed Book 919, Page 62, Boone County Clerk's records.

TO HAVE AND TO HOLD the same to the above-named Grantee in the manner aforesaid, and the Grantors hereby covenanting with the Grantee, its successor Trustees and assigns, that the title so conveyed is CLEAR, FREE AND UNENCUMBERED, and that the Grantor will WARRANT AND SHALL DEFEND the same against all legal claims whatsoever except for all taxes accruing hereafter which Grantee assumes and agrees to pay.

Provided, however, that the property is conveyed subject to and/or benefited by all public roads, and all valid and existing conditions, restrictions, covenants, easements, declarations and reservations as may be found in the record chain of title.


The consideration for this transfer is a cash payment of \$100,000.00 from the Grantee to the Grantors. As additional consideration, the Grantee has conveyed to Grantors in a separate instrument a Life Estate interest in the real property known as 404 Beaver Road, Walton, KY 41094.

The Fair Cash Value of the real property conveyed herein is \$142,500.00.

PURSUANT TO KRS 382.135, GRANTORS AND GRANTEE HEREBY CERTIFY, UNDER OATH, THAT THE CONSIDERATION REFLECTED IN THIS DEED IS THE FULL CONSIDERATION PAID FOR THE PROPERTY AND GRANTEE EXECUTES THIS DEED FOR THE SOLE PURPOSE OF MAKING THIS STATEMENT ABOUT CONSIDERATION.

IN WITNESS WHEREOF, this General Warranty Deed has been executed by the above-named Grantors and Grantee effective the 14<sup>th</sup> day of February, 2022.

Grantors:

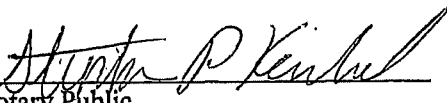
  
Robert Rosenacker

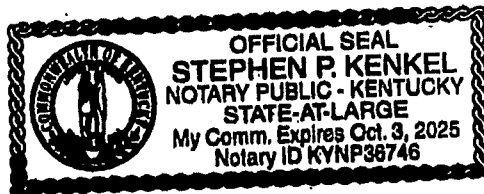
  
Sherri Rosenacker

State of Kentucky, County of Boone, SS:

The foregoing General Warranty Deed including the Consideration Certificate was subscribed, sworn to and acknowledged before me, a Notary Public in and for said State and County, this 14<sup>th</sup> day of February, 2022, by the Grantors, **Robert Rosenacker and Sherri Rosenacker, husband and wife.**

Commission Expires: \_\_\_\_\_

  
Notary Public



AFTER RECORDING, PLEASE RETURN TO:  
HOMESTEAD TITLE AGENCY, LP  
3940 OLYMPIC BLVD., SUITE 530  
ERLANGER, KY 41018

**GENERAL WARRANTY DEED**

KNOW ALL MEN BY THESE PRESENTS: That Lawrence Hubbard, an unmarried individual, (hereinafter "Grantor"), for and in consideration of \$ 200,000.00 paid by Jim Brueggemann, Trustee of the Home Sweet Home Trust (hereinafter "Grantee"), the receipt and sufficiency of which is hereby acknowledged, does hereby bargain, sell and convey in fee simple and with covenants of general warranty to the Grantee, its successors and assigns forever, the following described real property:

**SEE EXHIBIT "A" ATTACHED HERETO AND INCORPORATED BY REFERENCE HEREIN**

Grantor's Mailing Address: PO Box 1062, Florence, KY 41042

Property Street Address: 11982 Skyway Drive, Walton, KY 41094

Grantee's Mailing Address and Transfer year taxes addressed in care of: Home Sweet Home Trust - 12764 McCoys Fork Road, Walton, KY 41094

Being the same property conveyed to Lawrence Hubbard and Clara K. Hubbard, husband and wife with the rights of survivorship, by General Warranty Deed recorded on 10/16/2006 at Deed Book 924, Page 24, Boone County Clerk's records. Clara K. Hubbard died, a resident of Boone County, Kentucky, on March 3<sup>rd</sup>, 2010. See Probate Case 10-P-00216, Boone County District Court and Affidavit of Descent recorded at Misc. Book 1150, Page 219, Boone County Clerk's records. Pursuant to the survivorship provision in the aforementioned Deed, upon Clara's death, fee simple title vested with Lawrence Hubbard, Grantor herein.

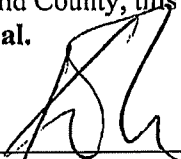
TO HAVE AND TO HOLD the same to the above-named Grantee in the manner aforesaid, and the Grantor hereby covenanting with the Grantee, its successors and assigns, that the title so conveyed is CLEAR, FREE AND UNENCUMBERED, and that the Grantor will WARRANT AND SHALL DEFEND the same against all legal claims whatsoever except for all taxes accruing hereafter which Grantee assumes and agrees to pay.

Provided, however, that the property is conveyed subject to and/or benefited by all public roads, and all valid and existing conditions, restrictions, covenants, easements, declarations and reservations as may be found in the record chain of title.

State of Kentucky, County of Boone, SS:

The foregoing General Warranty Deed including the Consideration Certificate was subscribed, sworn to and acknowledged before me, a Notary Public in and for said State and County, this 14<sup>th</sup> day of January, 2022, by the Grantor, **Lawrence Hubbard, an unmarried individual.**

Commission Expires: \_\_\_\_\_


  
\_\_\_\_\_  
Notary Public

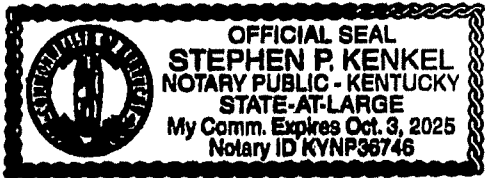
**KEVIN T. GUILFOYLE**  
Notary Public, Kentucky State at Large  
My Commission Expires Oct. 15, 2022  
Notary ID# 610577

State of Kentucky, County of Boone, SS:


The foregoing General Warranty Deed including the Consideration Certificate was subscribed, sworn to and acknowledged before me, a Notary Public in and for said State and County, this 13<sup>th</sup> day of January, 2022, by the Grantee, **Jim Brueggemann, Trustee of the Home Sweet Home Trust.**

Commission Expires: \_\_\_\_\_

  
\_\_\_\_\_  
Notary Public



This Instrument prepared by:

  
Stephen P. Kenkel, Attorney at Law  
3940 Olympic Blvd., Suite 530  
Erlanger, KY 41018  
(859) 578-2700

**RETURN TO:**

3  
saw

AFTER RECORDING PLEASE RETURN TO:  
Homestead Title Agency, Ltd.  
2500 Chamber Center Drive, Ste. 103  
Ft. Mitchell, KY 41017

RETURN TO:

WARRANTY DEED

KNOW ALL MEN BY THESE PRESENTS:

That the Grantor, **EDDIE WAYNE FOLEY**, Executor of the Estate of **EDWARD FOLEY**, whose mailing address is 11977 Skyway Drive, Walton, Kentucky 41094, acting pursuant to authority vested in and granted to him by the Last Will and Testament of said Edward Foley, which is of record in Will Book W82, page 950, Boone County Clerk's records, for and in consideration of the sum of TWO HUNDRED TEN THOUSAND (\$210,000.00) DOLLARS, paid to the Grantor by Grantee, **HOME SWEET HOME TRUST**, acting by and through its Trustee, Jim Brueggemann, or its assigns, the receipt whereof is hereby acknowledged, does hereby bargain, sell and convey to the said Grantee, **HOME SWEET HOME TRUST**, whose mailing address and in-care-of tax mailing address for current tax year is 12764 McCoys Fork Road, Walton, Kentucky 41094, its assigns forever, the following described real estate, lying and being in Boone County, Kentucky, to-wit:

GROUP NO.: 851

PIDN: 077.00-03-007.00

Return deed to: Home Sweet Home Trust  
12764 McCoys Fork Road  
Walton, Kentucky 41094

ADDRESS OF PROPERTY: 11972 Skyway Drive  
Walton, Kentucky 41094

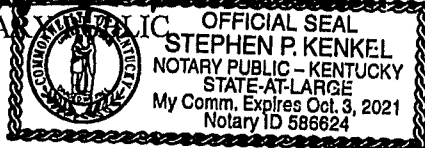
IN WITNESS WHEREOF, the said Grantor, **EDDIE WAYNE FOLEY**, Executor of said estate, acting pursuant to said authority and in said capacity only, and the said Grantee, **HOME SWEET HOME TRUST**, acting by and through its Trustee, Jim Brueggemann, hereunto set their hands on this, the 15<sup>th</sup> day of May, 2019. The signature of the Grantee below-appearing relates only to the said certification in compliance with KRS 382.135.

Eddie Wayne Foley, EXECUTOR  
**EDDIE WAYNE FOLEY**, Executor  
 ESTATE OF EDWARD FOLEY, Grantor

Jim Brueggemann Trustee  
**HOME SWEET HOME TRUST**, Grantee  
 by: Jim Brueggemann, Trustee

STATE OF KENTUCKY    )  
   ) SCT.  
 COUNTY OF KENTON    )

The foregoing instrument was subscribed, sworn to and acknowledged before me by **EDDIE WAYNE FOLEY**, Executor of the Estate of Estate of Edward Foley, Grantor, on the 15<sup>th</sup> day of May, 2019. My Commission as Notary Public, State of Kentucky at Large, expires \_\_\_\_\_.

Stephen P. Kenkel  
 NOTARY PUBLIC OFFICIAL SEAL  
  
 STATE OF KENTUCKY    )  
   ) SCT.  
 COUNTY OF Boone    )  
 KENTON                            )

The foregoing instrument was subscribed, sworn to and acknowledged before me by **HOME SWEET HOME TRUST**, by Jim Brueggemann, Trustee, Grantee, on the 15<sup>th</sup> day of May, 2019. My Commission as Notary Public, State of Kentucky at Large, expires 8/26/21.

Anita Butler  
 NOTARY PUBLIC

**ANITA BUTLER**  
 NOTARY PUBLIC  
 Kentucky, State At Large  
 ID # **585031**  
 My Commission Expires **8/26/2021**

I certify that I prepared this Deed.  
 No title examination was done by or requested of the undersigned.

Nick Benson  
**NICK BENSON**, #04607  
 of **BENSON and SCHULTZ**, P.S.C.  
 Attorneys at Law  
 10 South Main Street  
 Walton, Kentucky 41094  
 (859) 485-4104

**Boone County**  
**D1126 PG 21**

DOCUMENT NO: 774348  
 RECORDED ON: MAY 17, 2019 09:17:00AM  
 TOTAL FEES: \$17.00  
 TRANSFER TAX: \$210.00  
 GROUP : 851  
 COUNTY CLERK: JUSTIN CRIGLER  
 COUNTY: BOONE COUNTY CLERK  
 DEPUTY CLERK: NICHELLE E  
 MAY 17 2019

36A

RETURN TO:

AFTER RECORDING PLEASE RETURN TO:  
HOMESTEAD TITLE AGENCY, LTD:  
2500 CHAMBER CENTER DRIVE, STE. 103  
FT. MITCHELL, KY 41017

**GENERAL WARRANTY DEED**

**KNOW ALL MEN BY THESE PRESENTS:** That Paul Birkenhauer and Melinda S. Birkenhauer, **husband and wife** ("Grantors"), for and in consideration of \$122,500.00 paid by **Jim Brueggemann, Trustee of the Home Sweet Home Trust** ("Grantee"), the receipt of which consideration is hereby acknowledged, do hereby bargain, sell and convey in fee simple and with covenants of general warranty to Grantee, its successors and assigns forever, the following described real estate:

SEE EXHIBIT A ATTACHED HERETO:

PROPERTY ADDRESS: 430 Beaver Road, Walton, KY 41094

Grantors' Mailing Address: 10678 ASPEN PLACE UNION KY 41091

Grantee's Mailing Address: 12764 McCoy Fork Road Walton Kentucky 41094

Transfer year taxes addressed in care of: Jim Brueggeman, 12764 McCoy Fork Rd. Walton KY 41094

✓ Being all of the property conveyed to Paul Birkenhauer herein by deed recorded at Deed Book 933, Page 868, Boone County Clerk's Office in Burlington, Kentucky.

Together with all the privileges and appurtenances to the same belonging.

TO HAVE AND TO HOLD the same to the above-named Grantee in the manner aforesaid, and the Grantors hereby covenanting with the Grantee, its successors and assigns, that the title so conveyed is **CLEAR, FREE AND UNENCUMBERED**, and that Grantors will **WARRANT AND SHALL DEFEND** the same against all legal claims whatsoever except for all taxes accruing hereafter which Grantee assumes and agrees to pay.

Provided, however, that the property is conveyed subject to all public roads, and all valid and existing conditions, restrictions, covenants, easements, and reservations as may be found in the record chain of title.

**Pursuant to KRS 382.135, Grantors and Grantee hereby certify, under oath, that the consideration reflected in this deed is the full consideration paid for the property and Grantee executes this deed for the sole purpose of making this certificate about consideration.**

EXHIBIT "A"

Property Address: 430 Beaver Road, Walton, KY 41094  
GROUP #: 851           PIDN: 077.00-03-004.00

Situated in the City of Walton, County of Boone, Kentucky, being more particularly described as follows:

Being Lot 4 of the Chester Sturgeon and John Wood Subdivision as shown on Plat Book 6 at page 48 of the Boone County Clerk's records at Burlington, Kentucky.

There are excepted from the warranty covenants set forth herein, matters of zoning, conditions and restrictions, and easements of record.

DOCUMENT NO: 861783  
RECORDED: February 15, 2022 10:34:00 AM  
TOTAL FEES: \$50.00 TRANSFER TAX: \$142.50  
COUNTY CLERK: JUSTIN CRIGLER  
DEPUTY CLERK: MICHELLE EICKHOFF  
COUNTY: BOONE COUNTY  
BOOK: D1182 PAGES: 234 - 237  
GROUP ID: 851

**RETURN TO:** AFTER RECORDING, PLEASE RETURN TO:  
HOMESTEAD TITLE AGENCY, LP  
3940 OLYMPIC BLVD., SUITE 530  
ERLANGER, KY 41018

**DEED TO CONVEY LIFE ESTATE**

KNOW ALL MEN BY THESE PRESENTS: That Jim Brueggemann, Trustee of the Home Sweet Home Trust (hereinafter "Grantor"), for and in consideration of \$1.00 paid by Robert Rosenacker and Sherri Rosenacker, husband and wife, (hereinafter "Grantees"), the receipt and sufficiency of which is hereby acknowledged, does hereby bargain, sell and convey a Life Estate Interest only to the Grantees, for their natural lives and as joint tenants, with the remainder upon the death of both Grantees to Home Sweet Home Trust, Jim Brueggemann Trustee, its successors Trustee(s) or assigns forever, subject to the provisions contained herein and the paragraph titled "Possession of Property", the following described real property:

**SEE EXHIBIT "A" ATTACHED HERETO AND INCORPORATED BY REFERENCE HEREIN**

Grantor's Mailing Address:

Property Street Address: 404 Beaver Road, Walton, KY 41094

Grantees' Mailing Address Robert and Sherri Rosenacker, 404 Beaver Road, Walton, KY 41094.

Transfer year tax bill mailing address: Home Sweet Home Trust, 12764 McCoys Fork Road, Walton, KY 41094.

Being the same property conveyed to Jim Brueggemann, Trustee of the Home Sweet Home Trust recorded on 12/28/2015 at Deed Book 1064, Page 685, Boone County Clerk's records.

The Life Estate Interest only conveyed herein is conveyed subject to and/or benefited by all public roads, and all valid and existing conditions, restrictions, covenants, easements, declarations and reservations as may be found in the record chain of title. Grantor further covenants that if the roof on the residence at 404 Beaver Road, Walton KY 41094 needs to be replaced (as judged by a qualified individual or firm) during the Life Estate of the Grantees, Grantor shall bear the cost of such replacement and shall promptly replace said roof in a workmanlike manner and according the applicable building codes.

Grantor hereby further covenants that during the Life Estate of the Grantees, Grantor shall be responsible for and shall pay the cost of any property tax bill or assessment associated with 404 Beaver Road, Walton KY. Grantor shall not allow the property tax bills or assessments to become delinquent and shall indemnify and defend any claim against Grantees as a result of unpaid tax bills or assessments.

BOONE COUNTY  
D1182 PG235

**Possession of Property**

The Grantees' possession of the 404 Beaver Road Property shall occur according to the following schedule:

- (a) No later than July 1<sup>st</sup>, 2022, Grantees shall have the unfettered right to use the Barn situated 404 Beaver Road, Walton KY 41094 and access to and from the Barn over Grantor's lands.
- (b) No later than July 1<sup>st</sup>, 2024, Grantees shall have the full use and enjoyment of their Life Estate in the 404 Beaver Road, Walton KY 41094 property.
- (c) Grantor may allow Grantees to have possession of the Barn or the entire 404 Beaver Road Property at an earlier date. An instrument in writing, signed by Grantor waiving the above dates may be delivered to Grantees.

PURSUANT TO KRS 382.135, GRANTOR AND GRANTEEES HEREBY CERTIFY, UNDER OATH, THAT THE CONSIDERATION REFLECTED IN THIS DEED IS THE FULL CONSIDERATION PAID FOR THE PROPERTY AND GRANTEEES EXECUTE THIS DEED FOR THE SOLE PURPOSE OF MAKING THIS STATEMENT ABOUT CONSIDERATION.

**FCV: \$142,500.00**

IN WITNESS WHEREOF, this General Warranty Deed has been executed by the above-named Grantor and Grantees effective the 14<sup>th</sup> day of February, 2022.

**Grantor:**

**Home Sweet Home Trust**

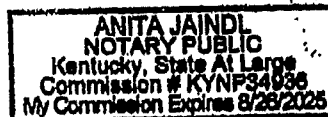
Jim Brueggemann  
By: Jim Brueggemann, Trustee

State of Kentucky, County of Boone, SS:

The foregoing Deed to Convey Life Estate including the Consideration Certificate was subscribed, sworn to and acknowledged before me, a Notary Public in and for said State and County, this 14<sup>th</sup> day of February, 2022, by the Grantor, Jim Brueggemann, Trustee of the Home Sweet Home Trust.

Commission Expires: 8/26/2025

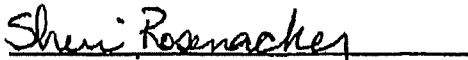
Anita Jairol  
Notary Public



BOONE COUNTY  
D1182 PG236

Grantees:

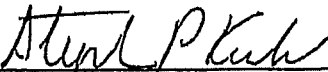
  
Robert Rosenacker

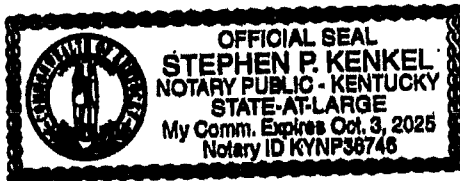
  
Sherri Rosenacker

State of Kentucky, County of Boone, SS:

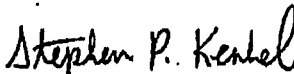
The foregoing Deed to Convey Life Estate including the Consideration Certificate was subscribed, sworn to and acknowledged before me, a Notary Public in and for said State and County, this 14<sup>th</sup> day of February, 2022, by the Grantees, Robert Rosenacker and Sherri Rosenacker, husband and wife.

Commission Expires: \_\_\_\_\_

  
Notary Public



This Instrument prepared by:

  
Stephen P. Kenkel, Attorney at Law  
3940 Olympic Blvd., Suite 530  
Erlanger, KY 41018  
(859) 578-2700

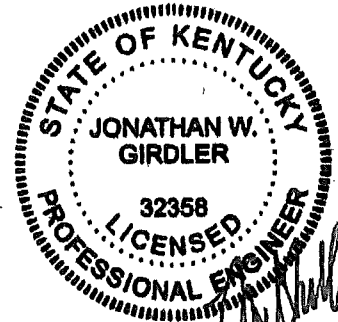
# PRIVATE (K-12) SCHOOL ADDITION TRAFFIC IMPACT STUDY

Beaver Road (KY-1292) and Private Driveway  
City of Walton, Boone County, Kentucky

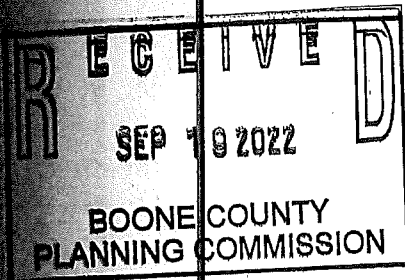


Prepared for:

**Robert Ehmet Hayes & Associates**  
2512 Dixie Highway  
Fort Mitchell, Kentucky 41017



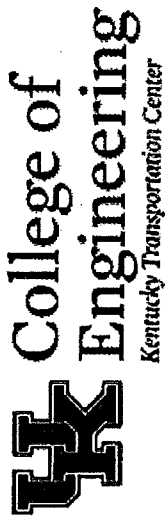
A handwritten signature in black ink, appearing to read "Jonathan W. Girdler", written over the bottom right portion of the professional engineer seal.



**VIOX & VIOX**

Civil Engineers, Surveyors, and Landscape Architects  
466 Erlanger Road • Erlanger, Kentucky 41018  
Ph (859) 727-3293 • Fax (859) 727-8452 • www.vioxinc.com

Prepared By: **Jon Girdler, PE**  
Date: **September 19, 2022**



**TECHNOLOGY  
TRANSFER  
PROGRAM**

**TRAFFIC IMPACT STUDY COURSE  
Certificate of Completion (3.5 PDH)**

**Jon Girdler**

**KY PE License No. 32358**

**Completed: 05/13/2022**

**Expires: 05/13/2026**

**Company: University of Kentucky**

**TIM THARPE**

**Tim Tharpe, KYTC**

**Director of Traffic Operations**

**Adam Kirk, Instructor**

**The official status of this certificate can be verified with the  
KYTC Division of Traffic Operations**

**TABLE OF CONTENTS**

1. EXECUTIVE SUMMARY.....1

2. INTRODUCTION.....2

3. SCOPE OF WORK.....3

4. EXISTING AREA CONDITIONS .....5

5. PROPOSED SITE DEVELOPMENT .....6

6. TRAFFIC ANALYSIS.....7

*Capacity Analysis*.....7

*Mary Grubbs Hwy/Stephenson Mill Road & Beaver Road/Walton-Verona Road*.....8

*Mary Grubbs Hwy & I-75 SB Off-Ramp*.....10

*Mary Grubbs Hwy & I-75 NB Off-Ramp*.....12

*Beaver Road & Existing Access Driveway*.....14

*Beaver Road & Proposed Access Driveway*.....16

7. FINDINGS .....19

*95<sup>th</sup> Percentile Queue Lengths*.....20

8. RECOMMENDATIONS.....23

**FIGURES**

**Figure 1 – Development Site Location Map**

**TABLES**

Table 1. Estimated New Site Trips (2024 – Full Build) .....6

Table 2. Unsignalized Intersection LOS Criteria.....7

Table 3. Signalized Intersection LOS Criteria.....7

Table 4. Mary Grubbs/Beaver/Stephenson Mill/Walton-Verona – AM LOS/Delay (seconds/vehicle) .....8

Table 5. Mary Grubbs/Beaver/Stephenson Mill/Walton-Verona – PM LOS/Delay (seconds/vehicle).....9

Table 6. Mary Grubbs & I-75 SB Off-Ramp - AM LOS/Delay (seconds/vehicle) .....10

Table 7. Mary Grubbs & I-75 SB Off-Ramp - PM LOS/Delay (seconds/vehicle).....11

Table 8. Mary Grubbs & I-75 NB Off-Ramp - AM LOS/Delay (seconds/vehicle).....12

Table 9. Mary Grubbs & I-75 NB Off-Ramp - PM LOS/Delay (seconds/vehicle) .....13

Table 10. Beaver Road & Existing Access Driveway - AM LOS/Delay (seconds/vehicle).....14

Table 11. Beaver Road & Existing Access Driveway - PM LOS/Delay (seconds/vehicle) .....15

Table 12. Beaver Road & Proposed Access Driveway - AM LOS/Delay (seconds/vehicle) .....16

Table 13. Beaver Road & Proposed Access Driveway - PM LOS/Delay (seconds/vehicle).....17

Table 14. Turn Lane Warrant Summary – Beaver Road & Existing Access Driveway .....18

Table 15. Turn Lane Warrant Summary - Beaver Road & Proposed Access Driveway .....18

Table 16. 95<sup>th</sup> Percentile Queue Lengths (feet) – Mary Grubbs/Stephenson Mill/Beaver/Walton-Verona.....20

Table 17. 95<sup>th</sup> Percentile Queue Lengths (feet) – Mary Grubbs & I-75 SB Off-Ramp .....21

Table 18. 95<sup>th</sup> Percentile Queue Lengths (feet) – Mary Grubbs & I-75 NB Off-Ramp.....22

## **APPENDICES**

- A. Site Concept Plan**
  - B. ITE Trip Generation Rates, Plots and Equations & Turning Movement Exhibits**
  - C. Synchro Analyses**
  - D. Turn Lane Warrants**
  - E. Historic Traffic Data & Speed Study Data**
-

# 1. EXECUTIVE SUMMARY

The following provides an overview of the report and its recommendations related to the proposed private school development (Grades K-12, known as Our Lady of Assumption) in the City of Walton, Boone County, Kentucky. The Full Build condition is proposed to accommodate 360 students, which consists of 15 classrooms in the new building. The anticipated Full Build year is 2024.

The following conclusions are outlined below to mitigate any effects that the development will have on the surrounding roadways:

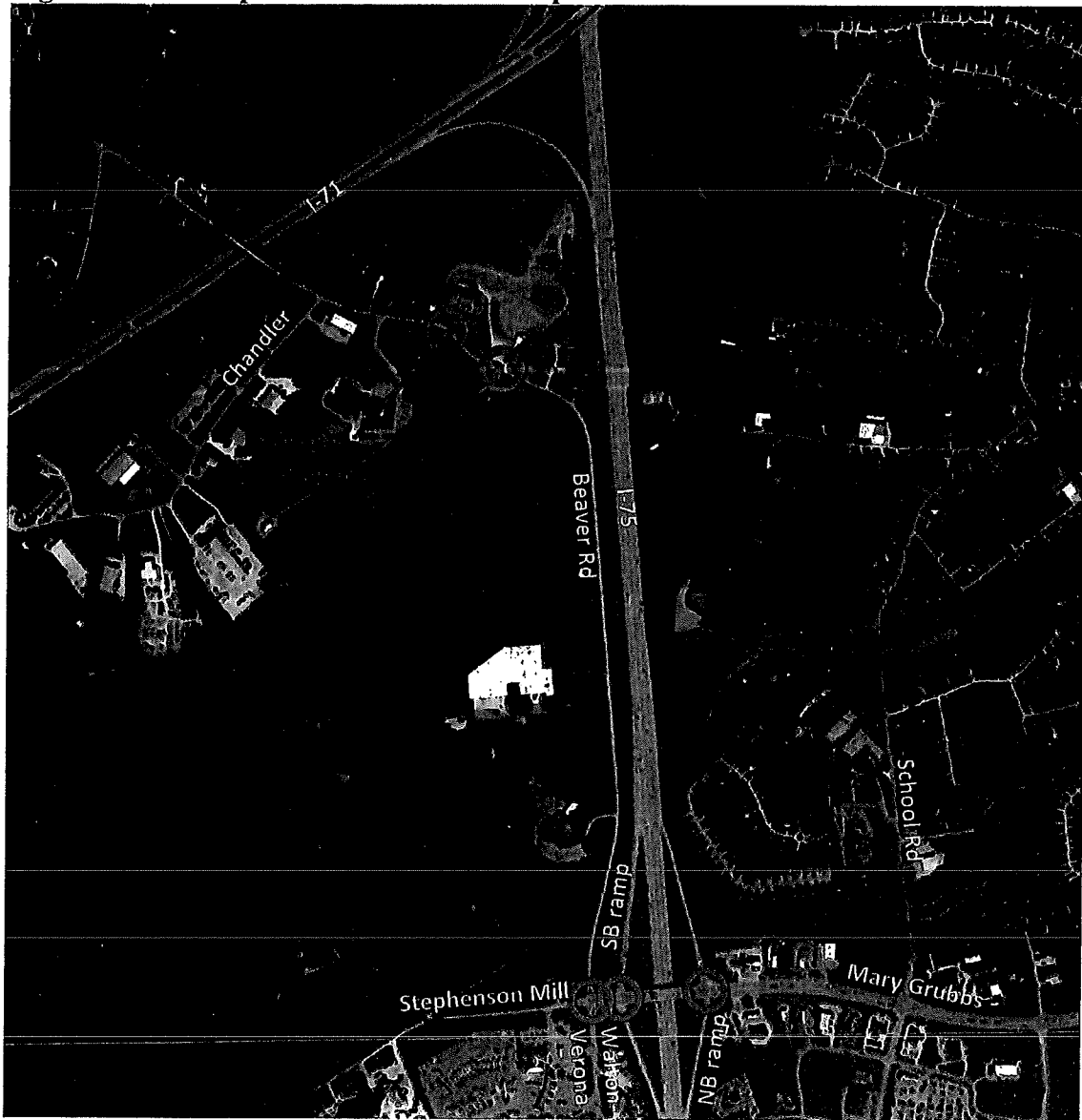
1. Exclusive turn lanes are not required for the existing church access and proposed driveways on Beaver Road. The turn lane warrants were completed for the 2034 post-Full Build scenarios. Since turn lanes were not warranted for the 2034 scenarios, turn lanes were not required for the previous scenarios.
2. It should be noted that, separate from this study, the KYTC is conducting an interchange study at the writing of this report. The study is evaluating potential modifications that can be made to the interchange that might improve the queuing and delay challenges experienced during the AM and PM peak hours. Results from the study are not expected to be available until the end of 2022.

## 2. INTRODUCTION

As requested by Robert Ehmet Hayes and Associates and per KYTC standards and regulations, this Traffic Impact Study (TIS) was completed to describe and measure the impact of traffic generated by the school on the existing public roadway system and provide a list of conclusions and recommendations required to fully mitigate such impact.

The development is enclosed by I-71 NB to I-75 SB ramp to the north, I-75 to the east, a residential parcel to the west, and Beaver Road to the south. The access points proposed for the development are shown in Figure 1 below. Per the current KYTC TIS guidelines, intersections within 4800 linear feet were evaluated for Base conditions (2022), Open/Full Build and No-Build conditions (2024), and post Full-Build and No-Build conditions (2034). The building will include 15 classrooms, which will accommodate 360 students (K-12). The proposed trip generation is shown in a later section of the report.

**Figure 1 – Development Site Location Map**



### 3. SCOPE OF WORK

Preliminary discussions regarding the TIS scope were held with KYTC District 6. It was determined the scope would include 4 existing intersections and a proposed intersection:

- Mary Grubbs/Walton-Verona Rd (KY-14/16)/Beaver Rd (KY-1292)/Stephenson Mill Rd (signalized, 4-way)
- Mary Grubbs Hwy (KY-14/16)/I-75 SB off- and on-ramps (signalized, 3-way)
- Mary Grubbs Hwy (KY-14/16)/I-75 NB on- and off-ramps (signalized, 3-way)
- Beaver Rd (KY-1292)/existing school driveway (unsignalized, 1-way stop-controlled)
- Beaver Rd (KY-1292)/proposed access driveway (unsignalized, 1-way stop-controlled)

The study area is shown in Figure 1.

The following work tasks were performed as part of this study:

1. **Meeting/discussions with Project Team, KYTC, and/or public agencies** – Discussions and/or meetings were held with the various jurisdictional agencies and interested parties for the purpose of the establishment of details of scope of work and technical traffic engineering analysis methodology.
2. **Existing traffic conditions** – A site reconnaissance was conducted for the purpose of identifying aspects of ingress/egress and important roadway characteristics on the subject roadways. Included in the reconnaissance was traffic lane geometry and utilization, pavement widths, roadway characteristics, posted speed limits, traffic controls, signage, applicable Manual of Uniform Traffic Control Devices standards, and any potential safety issues related to intersection sight distance.

Existing peak hour turning movements were completed by the data collection sub-consultant for the weekday morning (6:00 – 9:00 AM) and evening (3:00- 6:00 PM) time periods at the four existing intersections in May 2022.

The opening year/Full Build year is assumed to be year 2024. Two years of projected growth was added to the existing turning movement counts to serve as the Full Build traffic volumes.

3. **New traffic volumes and distribution of trips** – Trip volumes were estimated for the development's Build scenarios. These trips were calculated by using the Institute of Transportation Engineers (ITE) *Trip Generation Manual, 11<sup>th</sup> Edition*. New trip turning movements for vehicles were assigned to the adjacent street system using demographic information and the existing traffic flow distributions. Truck volumes were documented during the data collection phase.
4. **Turn Lane and Signal Warrant Analysis** - The need for exclusive left- and right-turn lanes was investigated anywhere the volumes might warrant the need.
5. **Projected Year Traffic** – The analysis was completed for existing conditions (2022), all Open/Full Build and No-Build scenarios (2024), and 10 years of projected traffic for the 2034 post No-Build and Full Build scenarios. The No-Build traffic volumes were estimated by applying a regional growth factor to the 2022 traffic volumes. Per KYTC personnel and growth rate calculations derived from KYTC historical traffic count data, the regional growth factor assumed was 1.00% (uncompounded). Refer to Appendix E for the specific KYTC count stations.

6. **Level of Service Analysis** – The study intersections were analyzed for morning and evening peak hour traffic volumes for the Build and No-Build scenarios.
7. **Traffic Impact Study Report** – This report was prepared per KYTC standards and regulations, and describes the methodology used for the traffic analysis. The report includes appropriate traffic engineering analysis, conclusions, and recommendations to fully mitigate any potential adverse traffic impacts. This report fully conforms to the regulations and standards adopted by KYTC.

The final report will be submitted to KYTC, Boone County Planning Commission, and City of Walton for review and approval.

## 4. EXISTING AREA CONDITIONS

Mary Grubbs Highway (KY-14/16) and the other nearby city and county roads are of paramount importance for the surrounding community and the adjacent roadway network in the vicinity of the proposed development. Mary Grubbs Highway is a major thoroughfare critical to the area, which provides access to Walton, Verona, Bracht, and Piner in the immediate vicinity. It provides access to a variety of collector and local roads as well. It is a four-lane divided highway with 2-lanes in each direction and exclusive eastbound and westbound left-turn lanes at intersections and driveways. Mary Grubbs Highway and Walton-Verona Road are classified as major urban collectors, and have posted speed limits of 45 MPH and 35 MPH, respectively. Beaver Road (KY-1292) is a minor urban collector within the study area, with vehicles traveling at an 85<sup>th</sup> percentile speed of 45 MPH, which was determined from a previous speed study. Stephenson Mill Road is a two-lane City of Walton road with a posted speed limit of 35 MPH. The topography of the roads consists of gentle ascents and descents along Mary Grubbs Highway. Stephenson Mill Road is hillier compared to the interchange area. Preliminarily, there appears to be sufficient sight distance (minimum of 500 feet) when looking left and right from the existing church and proposed school driveways. The intersections included for this study are as follows: the intersections Mary Grubbs makes with Beaver Road/Stephenson Mill Road/Walton-Verona Road, I-75 SB on- and off-ramps, and I-75 NB on- and off-ramps.

As previously mentioned, turning movement counts were completed by a data collection sub-consultant at the referenced locations during the weekday morning and afternoon time periods in May 2022. The study focused on the peak hour time periods of 7:15 – 8:15 AM and 4:45 – 5:45 PM. Truck classification counts were also conducted for the approaches at each intersection. The school drop-off time frame occurred during the majority of the AM peak hour. However, the school pick-up time frame was outside of the PM peak hour time period. The truck percentages for each lane group are reported in Appendix C.

It should be noted that there are existing queuing and delay challenges at the Mary Grubbs/I-75 SB off-ramp and Mary Grubbs/Stephenson Mill Road/Beaver Road/Walton-Verona Road intersections. This phenomenon is commonly referred to as bottlenecking. A large volume of trucks frequent this interstate exit because of the truck stop that is located southwest of the Mary Grubbs/Stephenson Mill Road/Beaver Road/Walton-Verona Road intersection. From I-75, truck drivers must travel westbound toward Beaver Road/Walton-Verona Road, then queue to turn left. The I-75 SB ramp and Beaver Road/Walton-Verona Road intersections have approximately 115 feet of storage between them, which is enough room for one semi-truck and two passenger cars. From I-75 SB, a truck must turn right and then make an immediate left. Additionally, this movement can prohibit other vehicles from passing the queued truck. If two trucks were queued to make a WB left at the Beaver Road/Walton-Verona Road intersection, the second truck's trailer would sit in the middle of the I-75 SB ramp intersection. Additionally, trucks that turn right from the I-75 SB off-ramp can block vehicles trying to make a WB right onto Beaver Road because the trailer could occupy both lanes. The same issues are present for traffic coming from the truck stop (NB Walton-Verona Road to EB Mary Grubbs Highway). The traffic coming from Stephenson Mill Road does not have the same queuing challenges since the volume is lower, but the delay can be around 200 seconds for consecutive signal cycles. Because the Beaver Road/Walton-Verona Road intersection is so close to the I-75 SB ramp intersection, the two signals are operated from one signal controller, which requires EB and WB green times to include time for all approaches in the corresponding directions. Currently, there is an ongoing interchange study at this location, which includes the Mary Grubbs Highway/Stephenson Mill Road/Beaver Road/Walton-Verona Road intersection. Preliminary results of the interchange study are expected to be available toward the end of 2022.

## 5. PROPOSED SITE DEVELOPMENT

Currently, the school accommodates approximately 100 students (K-12). Open/Full Build condition will consist of 15 classrooms to accommodate 360 students. Currently, the existing driveway to the church provides access to the school. Two additional driveways are proposed. The proposed driveway immediately east of the existing driveway is to serve as an egress for drop-off/pick-up operations. During all other times, this driveway is to serve as the main entrance to the school. The second driveway that is proposed is the current Skyway Drive. It is anticipated that Skyway Drive will be converted to a private road, which will be the access for service, delivery, and maintenance personnel. It is assumed that the school will be operational by the 2024 school year. The concept plan is included in Appendix A, which shows the Full-Build condition of the development. The new trips are estimated using Institute of Transportation Engineers (ITE) *Trip Generation Manual*, 11<sup>th</sup> Edition. The proposed new trips are summarized in Table 1. The Turning Movement Exhibits (found in Appendix B) show the trips assignments throughout the adjacent roadway network.

**Table 1. Estimated New Site Trips (2024 – Full Build)**

ITE Land Use Code	Land Use Description	Var. (X)	Var. Units	AM Peak Hour			PM Peak Hour		
				Enter	Exit	Total	Enter	Exit	Total
532	Private School (K-12)	360	Students	183	108	<b>291</b>	26	35	<b>61</b>
				63%	37%		43%	57%	
			<i>Unadjusted Volumes</i>	183	108	<b>291</b>	26	35	<b>61</b>
			<i>Internal Capture Trips</i>						
			<b>Total Trips</b>	<b>183</b>	<b>108</b>	<b>291</b>	<b>26</b>	<b>35</b>	<b>61</b>

Again, it should be noted that a portion of the assumed trips include existing trips. In other words, the trips amount to a credit of the total stated in Table 1. Additionally, it should also be noted that the estimated trip generation includes the average number of trips that various private schools generate. Private schools heavily rely on parent drop-offs/pick-ups unless a separate company is contracted to provide transportation. For this school in particular, a larger percentage of students are from the same family compared to other schools. With these two points in mind, the results shown in this study are assumed to be a worst-case scenario.

## 6. TRAFFIC ANALYSIS

### Capacity Analysis

A capacity analysis was performed for the study area intersections as previously indicated. All analysis scenarios were completed using Synchro/SimTraffic software. The capacity of an intersection is quantified by the Level of Service (LOS) which is based upon the amount of delay a vehicle experiences while at a particular intersection. The criterion for signalized and unsignalized intersections is listed below as defined in the Highway Capacity Manual (HCM, 6<sup>th</sup> Edition), Volume 3.

**Table 2. Unsignalized Intersection LOS Criteria**

LOS	Average Control Delay (seconds/vehicle)
A	≤ 10
B	> 10 – 15
C	> 15 – 25
D	> 25 – 35
E	> 35 – 50
F	> 50

**Table 3. Signalized Intersection LOS Criteria**

LOS	Average Control Delay (seconds/vehicle)	General Description
A	≤ 10	Free Flow
B	> 10 - 20	Stable Flow (slight delays)
C	> 20 - 35	Stable Flow (acceptable delays)
D	> 35 - 55	Approaching unstable flow (occasionally wait through more than one cycle)
E	> 55 - 80	Unstable Flow (intolerable delays)
F	> 80	Forced Flow (congested and queues fail to clear)

The following is a list of code definitions that are used in the capacity analysis results:

- EB/WB/NB/SB – Eastbound/Westbound/Northbound/Southbound
- L – Left Turn Movement
- T – Through Movement
- R – Right Turn Movement

The summary of Synchro/SimTraffic analyses completed for all No Build and Build AM and PM scenarios for their respective intersections is included below. The Synchro/SimTraffic output is included in Appendix C.

**Mary Grubbs Hwy/Stephenson Mill Road & Beaver Road/Walton-Verona Road**

The AM and PM analyses completed are shown below in Tables 4 and 5. The average intersection delays of the 2022, 2024, and 2034 AM No Build scenarios are LOS F. The increases/decreases in average intersection delays between the 2024 and 2034 No Build and Build scenarios are -1.1 and 35.9 seconds/vehicle, respectively. The 2034 No Build to Build scenario possesses an average intersection delay increase of approximately 34%.

**Table 4. Mary Grubbs/Beaver/Stephenson Mill/Walton-Verona – AM LOS/Delay (seconds/vehicle)**

Lane Group	EB (Stephenson Mill)			WB (Mary Grubbs)			NB (Walton-Verona)				SB (Beaver)			Int.
	L/T/R	App.		L/T	R	App.	L/T	R	App.	L/T/R	App.			
2022 - Base	F	F		C	D	D	F	F	F	F	F	F	F	F
	99.9	99.9		34.6	50.6	40.9	122.1	130.3	130.0	84.1	84.1	82.2	82.2	
2024 - No Build	F	F		D	D	D	F	F	F	F	F	F	F	F
	101.3	101.3		37.0	50.2	42.1	114.6	133.1	132.6	83.3	83.3	83.8	83.8	
2034 - No Build	F	F		D	D	D	F	F	F	F	F	F	F	F
	101.2	101.2		37.1	49.1	41.9	144.0	197.9	196.8	87.9	87.9	106.8	106.8	
2024 - Build	F	F		D	D	D	F	F	F	F	F	F	F	F
	105.2	105.2		35.4	42.3	38.7	109.3	148.3	146.9	80.3	80.3	82.7	82.7	
2034 - Build	F	F		C	D	C	F	F	F	F	F	F	F	F
	133.9	133.9		29.8	37.1	33.5	280.8	331.3	329.0	114.6	114.6	142.7	142.7	

The average intersection delays of the 2022, 2024, and 2034 No Build scenarios are LOS E. The increases/decreases in average intersection delays between the 2024 and 2034 No Build and Build scenarios are 5.8 and -8.8 seconds/vehicle, respectively. The 2024 No Build to Build scenario possesses an average intersection delay increase of approximately 9%.

**Table 5. Mary Grubbs/Beaver/Stephenson Mill/Walton-Verona – PM LOS/Delay (seconds/vehicle)**

Lane Group	EB (Stephenson Mill)			WB (Mary Grubbs)			NB (Walton-Verona)			SB (Beaver)		
	L/T/R	App.		L/T	R	App.	L/T	R	App.	L/T/R	App.	Int.
2022 - Base	F	F		C	D	C	E	F	F	F	F	E
	104.5	104.5		27.8	47.6	34.1	77.5	97.6	97.4	81.2	81.2	64.3
2024 - No Build	F	F		C	D	C	E	F	F	E	E	E
	94.3	94.3		26.0	44.5	31.4	79.3	95.7	95.2	79.8	79.8	61.5
2034 - No Build	F	F		C	D	D	F	F	F	F	F	E
	96.7	96.7		29.1	48.8	35.6	126.6	139.0	138.6	81.9	81.9	78.2
2024 - Build	F	F		C	D	C	F	F	F	E	E	E
	101.1	101.1		27.4	44.2	32.8	100.0	113.1	112.7	79.3	79.3	67.3
2034 - Build	F	F		C	D	C	F	F	F	F	F	E
	96.2	96.2		28.2	44.8	34.0	89.0	108.8	108.3	91.0	91.0	69.4

**Mary Grubbs Hwy & I-75 SB Off-Ramp**

The AM and PM analyses completed are shown below in Tables 6 and 7. The average intersection delays of the 2022, 2024, and 2034 AM No Build scenarios are LOS E – F. The increases/decreases in average intersection delays between the 2024 and 2034 No Build and Build scenarios are 19.0 and -17.8 seconds/vehicle, respectively. The 2024 No Build to Build scenario possesses an average intersection delay increase of approximately 26%.

**Table 6. Mary Grubbs & I-75 SB Off-Ramp - AM LOS/Delay (seconds/vehicle)**

Lane Group	EB (Mary Grubbs)			WB (Mary Grubbs)			NB (N/A)			SB (I-75 SB Off-Ramp)			
	T	T/R	App.	L	2T	App.				L	R	App.	Int.
2022 - Base	B	A	A	F	F	F				E	E	E	E
	10.6	6.4	10.0	109.7	170.8	155.0				69.7	67.7	69.1	69.5
2024 - No Build	B	A	B	F	F	F				E	E	E	E
	12.4	7.3	11.7	108.9	190.9	168.0				73.1	66.5	71.0	73.6
2034 - No Build	B	A	B	F	F	F				E	E	E	F
	14.1	9.5	13.5	167.3	243.2	223.7				74.2	78.5	75.5	87.2
2024 - Build	B	A	B	F	F	F				E	E	E	F
	11.4	8.2	10.9	125.1	257.3	228.3				70.5	77.3	72.9	92.6
2034 - Build	B	B	B	E	F	F				E	F	F	E
	17.3	11.2	16.5	54.1	114.8	100.3				79.9	112.7	91.2	69.4

The average intersection delays of the 2022, 2024, and 2034 No Build scenarios are LOS D – E. The increases/decreases in average intersection delays between the 2024 and 2034 No Build and Build scenarios are -0.8 and 3.8 seconds/vehicle, respectively. The 2034 No Build to Build scenario possesses an average intersection delay increase of approximately 4%.

**Table 7. Mary Grubbs & I-75 SB Off-Ramp - PM LOS/Delay (seconds/vehicle)**

Lane Group	EB (Mary Grubbs)			WB (Mary Grubbs)			NB (N/A)			SB (I-75 SB Off-Ramp)			Int.
	T	T/R	App.	L	2T	App.				L	R	App.	
2022 - Base	B	A	B	F	F	F				F	D	E	E
	12.6	9.6	12.0	92.3	139.2	120.6				81.2	54.8	73.6	70.0
2024 - No Build	B	A	B	F	F	F				F	E	F	E
	11.7	7.5	10.9	102.7	148.0	129.8				95.2	59.0	84.9	77.0
2034 - No Build	B	A	B	F	F	F				F	F	F	F
	11.6	7.8	10.9	145.4	205.2	182.3				114.8	88.2	107.1	95.8
2024 - Build	B	A	B	F	F	F				F	E	F	E
	12.9	8.1	12.1	106.0	148.8	131.6				90.9	60.8	82.2	76.2
2034 - Build	B	A	B	F	F	F				F	F	F	F
	13.0	9.2	12.3	131.3	178.2	160.1				137.2	81.2	121.0	99.6

**Mary Grubbs Hwy & I-75 NB Off-Ramp**

The AM and PM analyses completed are shown below in Tables 8 and 9. The average intersection delays of the 2022, 2024, and 2034 AM No Build scenarios are LOS C – D. The increases/decreases in average intersection delays between the 2024 and 2034 No Build and Build scenarios are 8.5 and -17.9 seconds/vehicle, respectively. The 2024 No Build to Build scenario possesses an average intersection delay increase of approximately 27%.

**Table 8. Mary Grubbs & I-75 NB Off-Ramp - AM LOS/Delay (seconds/vehicle)**

Lane Group	EB (Mary Grubbs)			WB (Mary Grubbs)			NB ( I-75 NB Off-Ramp )			SB (N/A)			Int.
	L	2T	App.	T	T/R	App.	L	R	App.				
2022 - Base	C	B	B	D	C	C	F	D	E				C
	28.5	12.4	15.9	53.7	22.7	33.4	143.9	41.5	65.7				30.1
2024 - No Build	C	B	B	D	C	C	F	D	E				C
	30.1	12.8	16.7	53.5	24.5	34.3	141.9	42.4	65.8				31.0
2034 - No Build	C	B	B	F	C	E	F	D	F				D
	31.0	12.6	16.6	107.6	30.8	57.0	380.6	45.4	129.8				49.1
2024 - Build	C	B	B	E	D	D	F	D	E				D
	29.3	12.5	16.0	68.3	39.4	50.4	186.3	40.7	79.5				39.5
2034 - Build	C	B	B	D	D	D	F	D	D				C
	28.9	10.9	14.7	44.4	37.8	40.2	85.0	41.1	53.4				31.2

The average intersection delays of the 2022, 2024, and 2034 No Build scenarios are LOS C – D. The increases/decreases in average intersection delays between the 2024 and 2034 No Build and Build scenarios are -0.6 and -1.1 seconds/vehicle, respectively. The 2024 No Build to Build scenario possesses an average intersection delay decrease of approximately 2%.

**Table 9. Mary Grubbs & I-75 NB Off-Ramp - PM LOS/Delay (seconds/vehicle)**

Lane Group	EB (Mary Grubbs)			WB (Mary Grubbs)			NB ( I-75 NB Off-Ramp )			SB (N/A)			Int.
	L	2T	App.	T	T/R	App.	L	R	App.				
2022 - Base	C	B	B	D	B	C	F	D	D				C
	26.2	12.1	15.1	51.5	19.5	33.6	95.8	39.5	53.6				28.1
2024 - No Build	C	B	B	E	C	D	F	D	E				C
	26.0	12.4	15.3	62.4	21.6	39.5	103.9	39.2	55.4				30.9
2034 - No Build	C	B	B	F	C	E	F	D	F				D
	26.7	12.8	15.7	106.7	27.5	61.0	251.0	39.9	92.3				43.7
2024 - Build	C	B	B	E	C	D	F	D	E				C
	27.0	12.0	15.1	59.3	21.7	38.2	114.3	40.7	57.2				30.3
2034 - Build	C	B	B	F	C	E	F	D	F				D
	27.3	12.6	15.6	92.2	30.3	56.9	262.5	38.1	95.3				42.6

**Beaver Road & Existing Access Driveway**

The AM and PM analyses completed are shown below in Tables 10 and 11. All approaches during the AM possess LOS A with delays less than 10 seconds/vehicle.

**Table 10. Beaver Road & Existing Access Driveway - AM LOS/Delay (seconds/vehicle)**

Lane Group	EB (Beaver Rd)		WB (Beaver Rd)		NB (N/A)			SB (Existing Access)	
	L/T	App.	T/R	App.				L/R	App.
2022 - Base		A		A					A
		1.0		0.3					4.3
2024 - No Build		A		A					A
		0.9		0.3					4.2
2034 - No Build		A		A					A
		1.2		0.4					4.5
2024 - Build		A		A					-
		2.3		0.8					-
2034 - Build		A		A					-
		2.4		0.7					-

All approaches during the PM possess LOS A with delays less than 10 seconds/vehicle.

**Table 11. Beaver Road & Existing Access Driveway - PM LOS/Delay (seconds/vehicle)**

Lane Group	EB (Beaver Rd)		WB (Beaver Rd)		NB (N/A)			SB (Existing Access)	
	L/T	App.	T/R	App.				L/R	App.
2022 - Base		A		A					A
		0.7		0.2					4.4
2024 - No Build		A		A					A
		0.8		0.2					3.9
2034 - No Build		A		A					A
		0.9		0.2					4.3
2024 - Build		A		A					-
		0.8		0.2					-
2034 - Build		A		A					-
		0.8		0.2					-

**Beaver Road & Proposed Access Driveway**

The AM and PM analyses completed are shown below in Tables 12 and 13. All approaches during the AM possess LOS A with delays less than 10 seconds/vehicle.

**Table 12. Beaver Road & Proposed Access Driveway - AM LOS/Delay (seconds/vehicle)**

Lane Group	EB (Beaver Rd)		WB (Beaver Rd)		NB (N/A)			SB (Proposed Access)	
	L/T	App.	T/R	App.				L/R	App.
2022 - Base		A		A					-
		0.1		0.2					-
2024 - No Build		A		A					-
		0.1		0.2					-
2034 - No Build		F		D					-
		0.1		0.2					-
2024 - Build		A		A					A
		0.1		0.6					4.9
2034 - Build		A		A					A
		0.1		0.7					4.9

All approaches during the PM possess LOS A with delays less than 10 seconds/vehicle.

**Table 13. Beaver Road & Proposed Access Driveway - PM LOS/Delay (seconds/vehicle)**

Lane Group	EB (Beaver Rd)		WB (Beaver Rd)		NB (N/A)			SB (Proposed Access)	
	L/T	App.	T/R	App.				L/R	App.
2022 - Base		A		A					-
		0.0		0.2					-
2024 - No Build		A		A					-
		0.0		0.2					-
2034 - No Build		A		A					-
		0.0		0.2					A
2024 - Build		A		A					4.2
		0.2		0.3					A
2034 - Build		A		A					4.0
		0.2		0.4					

## Turn Lane Warrants

Turn lane warrant analyses were completed for the Beaver Road/existing access driveway and Beaver Road/proposed access driveway intersections per the procedure outlined by the KYTC Highway Design Manual. Tables 14 and 15 summarize the turn lane warrant results. All turn lane warrant calculations can be found in Appendix D.

**Table 14. Turn Lane Warrant Summary – Beaver Road & Existing Access Driveway**

Design Scenario	NB Right Turn Lane	Length
2034 Build AM	Not Warranted	N/A
2034 Build PM	Not Warranted	N/A

As is indicated above, the turn lane warrant results show a turn lane is not warranted for the 2034 AM and PM Build scenarios. Turn lane warrant calculations can be found in Appendix D.

**Table 15. Turn Lane Warrant Summary - Beaver Road & Proposed Access Driveway**

Design Scenario	NB Right Turn Lane	Length
2034 Build AM	Not Warranted	N/A
2034 Build PM	Not Warranted	N/A

As is indicated above, the turn lane warrant results show a turn lane is not warranted for the 2034 AM and PM Build scenarios. Turn lane warrant calculations can be found in Appendix D.

## 7. FINDINGS

### **Mary Grubbs Highway/Stephenson Mill Road & Beaver Road/Walton-Verona Road**

Tables 4 and 5 show the results of the capacity analyses for the AM and PM peak hour periods, respectively. The AM and PM Build scenarios possess average intersection delays ranging from LOS E – F (67.3 – 142.7 seconds/vehicle).

### **Mary Grubbs Highway & I-75 SB Off-Ramp**

Tables 6 and 7 show the results of the capacity analyses for the AM and PM peak hour periods, respectively. The AM and PM Build scenarios possess average intersection delays ranging from LOS E – F (69.4 – 99.6 seconds/vehicle).

### **Mary Grubbs Highway & I-75 NB Off-Ramp**

Tables 8 and 9 show the results of the capacity analyses for the AM and PM peak hour periods, respectively. The AM and PM Build scenarios possess average intersection delays ranging from LOS C – D (30.3 – 42.6 seconds/vehicle).

### **Beaver Road & Existing Access Driveway**

Tables 10 and 11 show the results of the capacity analyses for the AM and PM peak hour periods, respectively. All AM and PM Build scenarios possess approach delays of LOS A (less than 10 seconds/vehicle).

### **Beaver Road & Proposed Access Driveway**

Tables 12 and 13 show the results of the capacity analyses for the AM and PM peak hour periods, respectively. All AM and PM Build scenarios possess approach delays of LOS A (less than 10 seconds/vehicle).

## 95<sup>th</sup> Percentile Queue Lengths

The following shows the tabulated queue lengths for signalized intersections as reported by the Synchro/SimTraffic results. The queue length is defined as the distance from the stop bar that back-up occurs because of delay at an intersection. Another metric used to summarize these results is the Queue Storage Ratio (QSR). The QSR is derived from the reported queue length divided by the available storage capacity.

Table 16 shows queue lengths for the Mary Grubbs Highway/Stephenson Mill Road/Beaver Road/Walton-Verona Road intersection. It should be noted that the intersection experiences queuing and delay challenges (bottlenecking), which is related to/caused by the traffic operation of the Mary Grubbs Highway/I-75 SB off-ramp intersection. For more details regarding the challenges of the closely spaced intersections, see the Existing Area Conditions section. The 2022 Base AM movements (and beyond) that possess QSR values larger than 1 are the westbound left-through (1.12) and the westbound right (1.18). The QSR for the northbound left-through increases from 0.97 to 0.98 during the 2034 AM No Build to Build scenarios. All other AM QSR values are below 1. The 2022 Base PM movements (and beyond) that possess QSRs larger than 1 are the westbound left-through and westbound right, being 1.16 and 1.22, respectively. All other QSR values are significantly below 1.

**Table 16. 95<sup>th</sup> Percentile Queue Lengths (feet) – Mary Grubbs/Stephenson Mill/Beaver/Walton-Verona**

AM Peak						
<i>Movement/Lane Group</i>	<i>Length (feet)</i>	<i>2022 Base</i>	<i>2024 No Build</i>	<i>2024 Build</i>	<i>2034 No Build</i>	<i>2034 Build</i>
<b>Eastbound Left-Through-Right</b>	1,000	199	207	201	203	282
<b>Westbound Left-Through</b>	115	129	132	127	126	130
<b>Westbound Right</b>	115	136	138	127	136	129
<b>Northbound Left-Through</b>	95	85	89	103	92	93
<b>Northbound Right</b>		1,142	1,042	1,023	1,465	1,869
<b>Southbound Left-Through-Right</b>		313	300	329	325	361

PM Peak						
<i>Movement/Lane Group</i>	<i>Length (feet)</i>	<i>2022 Base</i>	<i>2024 No Build</i>	<i>2024 Build</i>	<i>2034 No Build</i>	<i>2034 Build</i>
<b>Eastbound Left-Through-Right</b>	1,000	170	166	158	171	173
<b>Westbound Left-Through</b>	115	134	132	132	136	133
<b>Westbound Right</b>	115	140	139	138	138	141
<b>Northbound Left-Through</b>	95	59	65	90	90	90
<b>Northbound Right</b>		557	573	735	673	676
<b>Southbound Left-Through-Right</b>		306	298	316	321	328

Table 17 shows queue lengths for the Mary Grubbs Highway/I-75 SB off-ramp intersection. It should be noted that the intersection experiences queuing and delay challenges (bottlenecking), which is related to/caused by the traffic operation of the Mary Grubbs Highway/Stephenson Mill Road/Beaver Road/Walton-Verona Road intersection. For more details regarding the challenges of these closely spaced intersections, see the Existing Area Conditions section. The 2022 Base AM movements (and beyond) that possess QSR values larger than 1 are the eastbound through, eastbound through-right, westbound left, and westbound through (1.47, 1.28, 1.59, and 1.53, respectively). The same occurs for the 2022 Base PM scenario (1.48, 1.38, 1.81, and 1.57, respectively). All other AM and PM QSR values are below 1.

**Table 17. 95th Percentile Queue Lengths (feet) – Mary Grubbs & I-75 SB Off-Ramp**

<b>AM Peak</b>						
<i>Movement/Lane Group</i>	<i>Length (feet)</i>	<i>2022 Base</i>	<i>2024 No Build</i>	<i>2024 Build</i>	<i>2034 No Build</i>	<i>2034 Build</i>
<b>Eastbound Through</b>	100	147	150	139	151	150
<b>Eastbound Through-Right</b>	100	128	131	132	135	142
<b>Westbound Left</b>	160	254	244	268	270	188
<b>Westbound Throughs (2)</b>	430	659,269	678,305	696,572	702,319	527,402
<b>Southbound Left</b>	1,550	545	580	587	657	685
<b>Southbound Right</b>	1,600	417	393	426	447	605
<b>PM Peak</b>						
<i>Movement/Lane Group</i>	<i>Length (feet)</i>	<i>2022 Base</i>	<i>2024 No Build</i>	<i>2024 Build</i>	<i>2034 No Build</i>	<i>2034 Build</i>
<b>Eastbound Through</b>	100	148	148	150	149	144
<b>Eastbound Through-Right</b>	100	138	138	133	130	132
<b>Westbound Left</b>	160	290	290	298	304	304
<b>Westbound Throughs (2)</b>	430	674,169	674,169	691,198	685,197	681,215
<b>Southbound Left</b>	1,550	715	715	784	918	965
<b>Southbound Right</b>	1,600	363	363	418	610	639

Table 18 shows queue lengths for the Mary Grubbs Highway/I-75 NB off-ramp intersection. The 2022 Base AM movement (and beyond) that possesses a QSR value larger than 1 is the eastbound left, being 1.17. All other AM QSR values are below 1. The same is true for the 2022 Base PM scenario (and beyond). The QSR for the eastbound left movement is 1.10. All other QSR values are below 1.

**Table 18. 95<sup>th</sup> Percentile Queue Lengths (feet) – Mary Grubbs & I-75 NB Off-Ramp**

<b>AM Peak</b>						
<i>Movement/Lane Group</i>	<i>Length (feet)</i>	<i>2022 Base</i>	<i>2024 No Build</i>	<i>2024 Build</i>	<i>2034 No Build</i>	<i>2034 Build</i>
<b>Eastbound Left</b>	200	234	237	222	234	214
<b>Eastbound Throughs (2)</b>	450	235,223	232,233	229,232	236,245	205,219
<b>Westbound Through</b>	1,180	282	287	311	351	272
<b>Westbound Through-Right</b>	1,180	337	337	332	357	321
<b>Northbound Left</b>	1,200	273	284	385	601	281
<b>Northbound Right</b>	1,330	205	213	205	297	216
<b>PM Peak</b>						
<i>Movement/Lane Group</i>	<i>Length (feet)</i>	<i>2022 Base</i>	<i>2024 No Build</i>	<i>2024 Build</i>	<i>2034 No Build</i>	<i>2034 Build</i>
<b>Eastbound Left</b>	200	219	219	218	222	225
<b>Eastbound Throughs (2)</b>	450	224,228	224,228	220,239	241,252	230,252
<b>Westbound Through</b>	1,180	320	320	335	324	328
<b>Westbound Through-Right</b>	1,180	318	318	335	359	362
<b>Northbound Left</b>	1,200	217	217	221	445	472
<b>Northbound Right</b>	1,330	185	185	194	229	206

## 8. RECOMMENDATIONS

### General

Implementation of all work to be completed as part of the recommendations in this report shall be constructed per the KYTC, Boone County, or City of Walton standards. This includes the construction of access drives, any new lanes on public roads, and other appropriate traffic control devices. Additionally, all improvements made must be in accordance with the standards and regulations of the *Manual of Uniform Traffic Control Devices* (MUTCD) most current edition.

1. Exclusive turn lanes are not required for the existing church access and proposed driveways on Beaver Road. The turn lane warrants were completed for the 2034 post-Full Build scenarios. Since turn lanes were not warranted for the 2034 scenarios, turn lanes were not required for the previous scenarios.
2. It should be noted that, separate from this study, the KYTC is conducting an interchange study at the writing of this report. The study is evaluating potential modifications that can be made to the interchange that might improve the queuing and delay challenges experienced during the AM and PM peak hours. Results from the study are not expected to be available until the end of 2022.

# APPENDICES

- A. Site Concept Plan
- B. ITE Trip Generation Rates, Plots, and Equations  
& Turning Movement Exhibits
- C. Synchro Analyses
- D. Turn Lane Warrants
- E. Historic Traffic Data & Speed Study Data



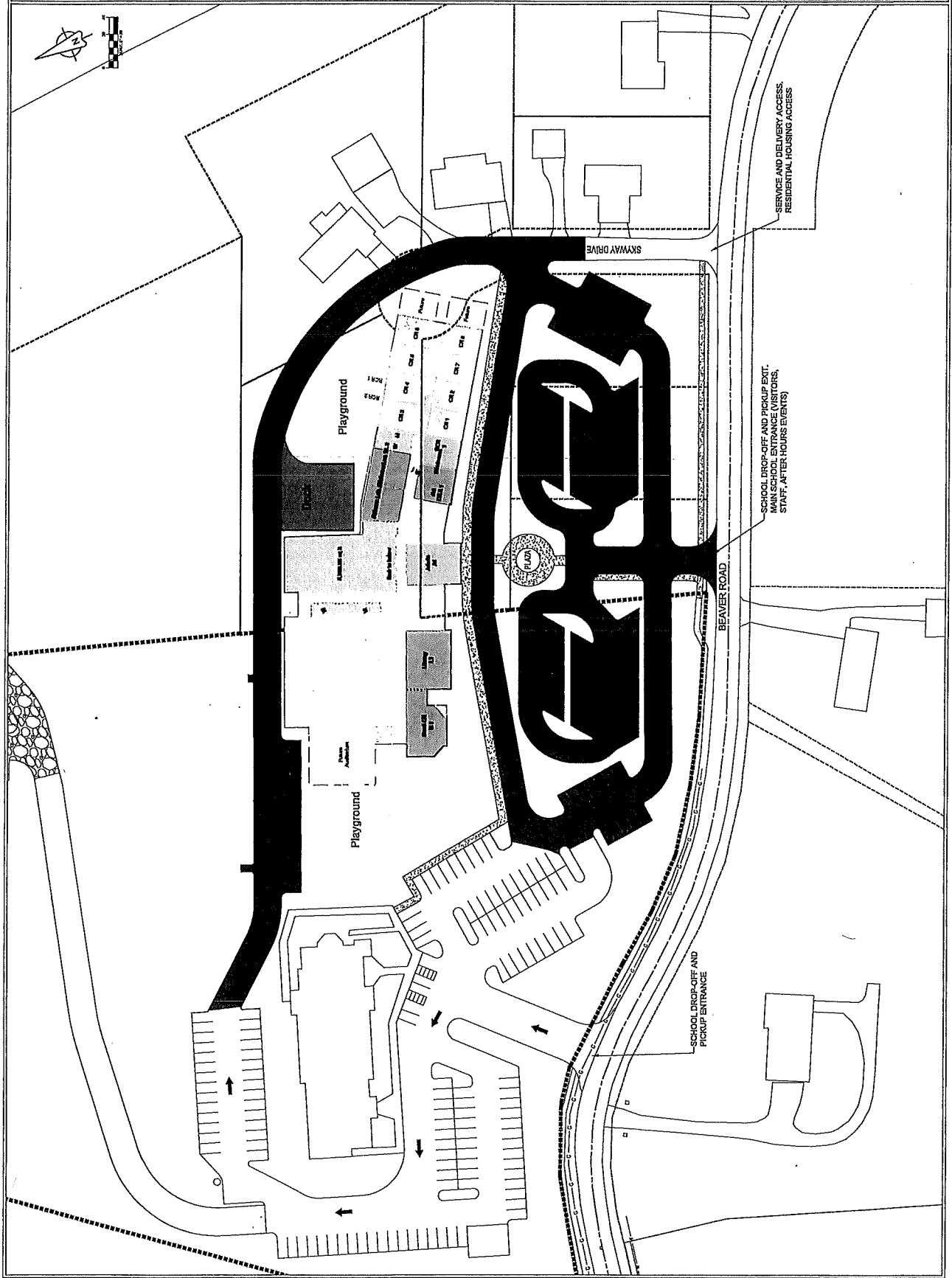
**VIOX & VIOX**

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# APPENDIX A

## Site Concept Plan





## **APPENDIX B**

**ITE Trip Generation Rates, Plots, and Equations**

**&**

**Turning Movement Exhibits**



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# Private School (K-12) (532)

**Vehicle Trip Ends vs: Students**  
**On a: Weekday,**  
**Peak Hour of Adjacent Street Traffic,**  
**One Hour Between 7 and 9 a.m.**

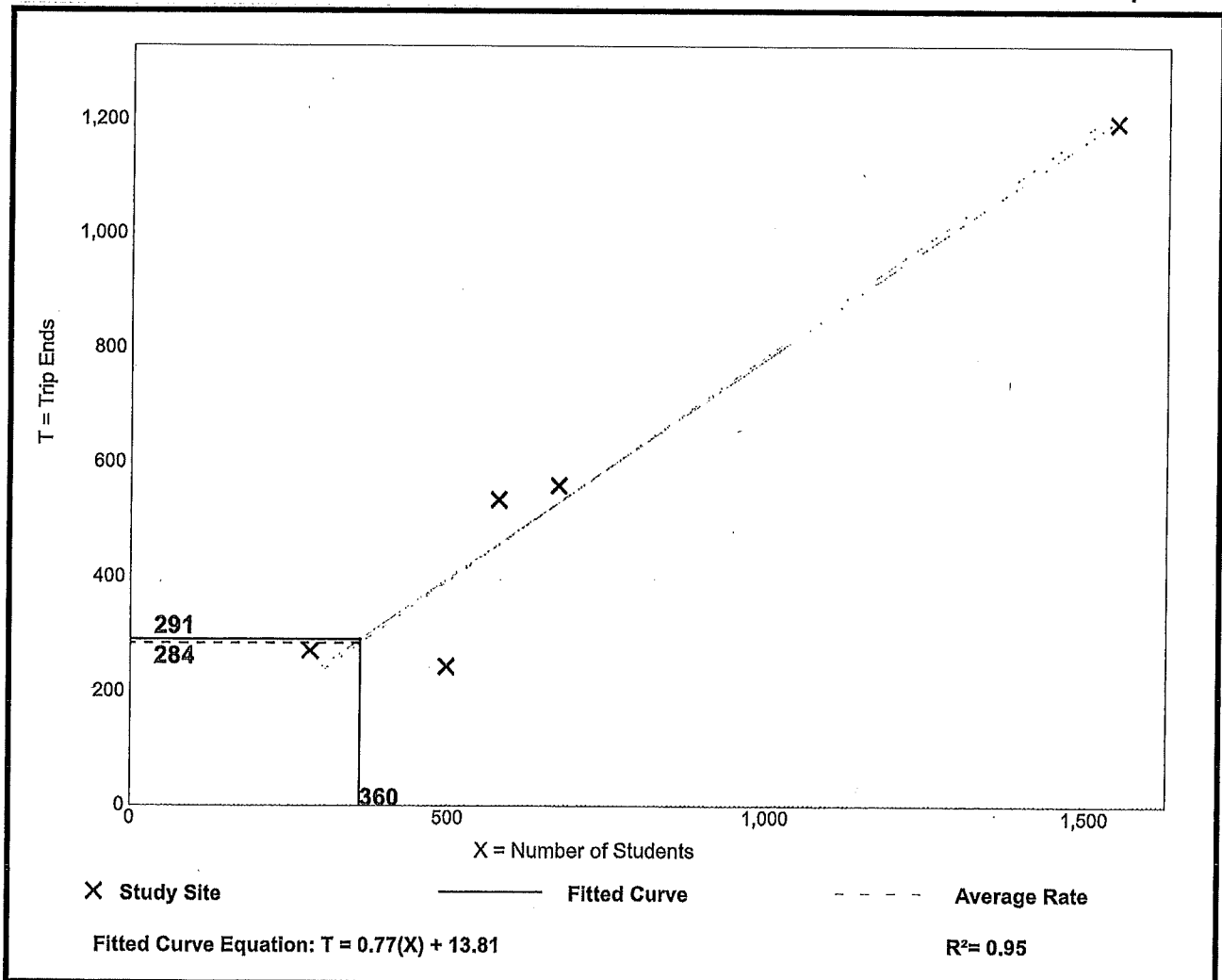
**Setting/Location: General Urban/Suburban**  
 Number of Studies: 5  
 Avg. Num. of Students: 714  
 Directional Distribution: 63% entering, 37% exiting

## Vehicle Trip Generation per Student

Average Rate	Range of Rates	Standard Deviation
0.79	0.49 - 0.96	0.15

## Data Plot and Equation

*Caution – Small Sample Size*



## Private School (K-12) (532)

**Vehicle Trip Ends vs: Students**  
**On a: Weekday,**  
**Peak Hour of Adjacent Street Traffic,**  
**One Hour Between 4 and 6 p.m.**

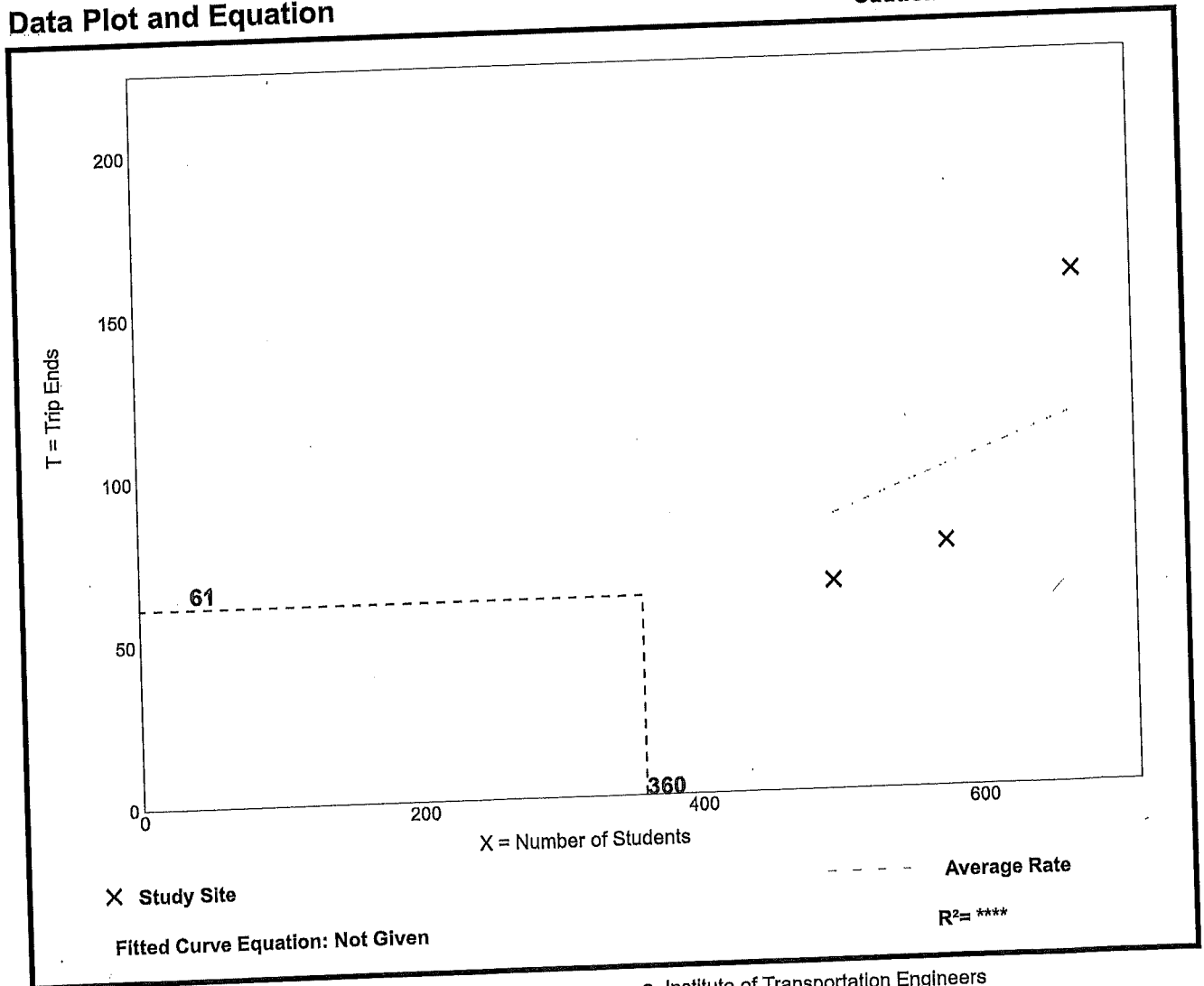
**Setting/Location: General Urban/Suburban**  
 Number of Studies: 3  
 Avg. Num. of Students: 581  
 Directional Distribution: 43% entering, 57% exiting

### Vehicle Trip Generation per Student

Average Rate	Range of Rates	Standard Deviation
0.17	0.13 - 0.23	0.06

### Data Plot and Equation

*Caution – Small Sample Size*





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## OUR LADY OF ASSUMPTION BOYS ACADEMY TRAFFIC IMPACT STUDY CITY OF WALTON, BOONE COUNTY, KENTUCKY

Project No:  
110714007  
Date:  
8/26/22

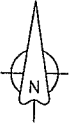
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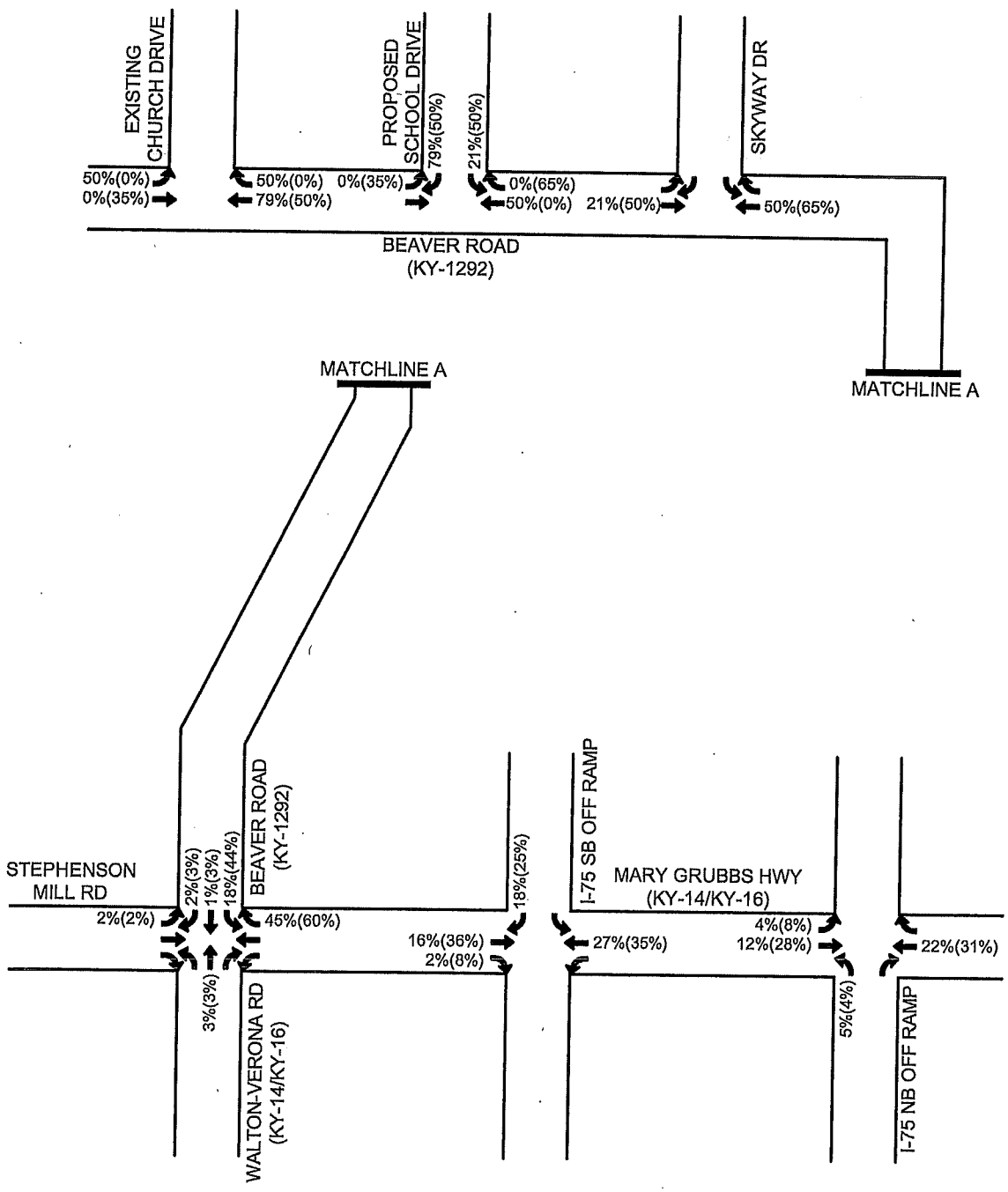
### EXHIBIT A

#### BUILD DISTRIBUTION PERCENTAGES AM(PM)

SUMMARY OF TRIPS			
	ENTER	EXIT	TOTAL
AM PEAK	183	108	291
PM PEAK	26	35	61



Proposed Development  
360 Student Private School (K-12)  
Addition





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## OUR LADY OF ASSUMPTION BOYS ACADEMY TRAFFIC IMPACT STUDY

CITY OF WALTON, BOONE COUNTY, KENTUCKY

BUILD DISTRIBUTION VOLUMES AM(PM)

Project No:  
110714007

Checked:  
MLB

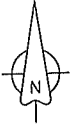
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8/26/22

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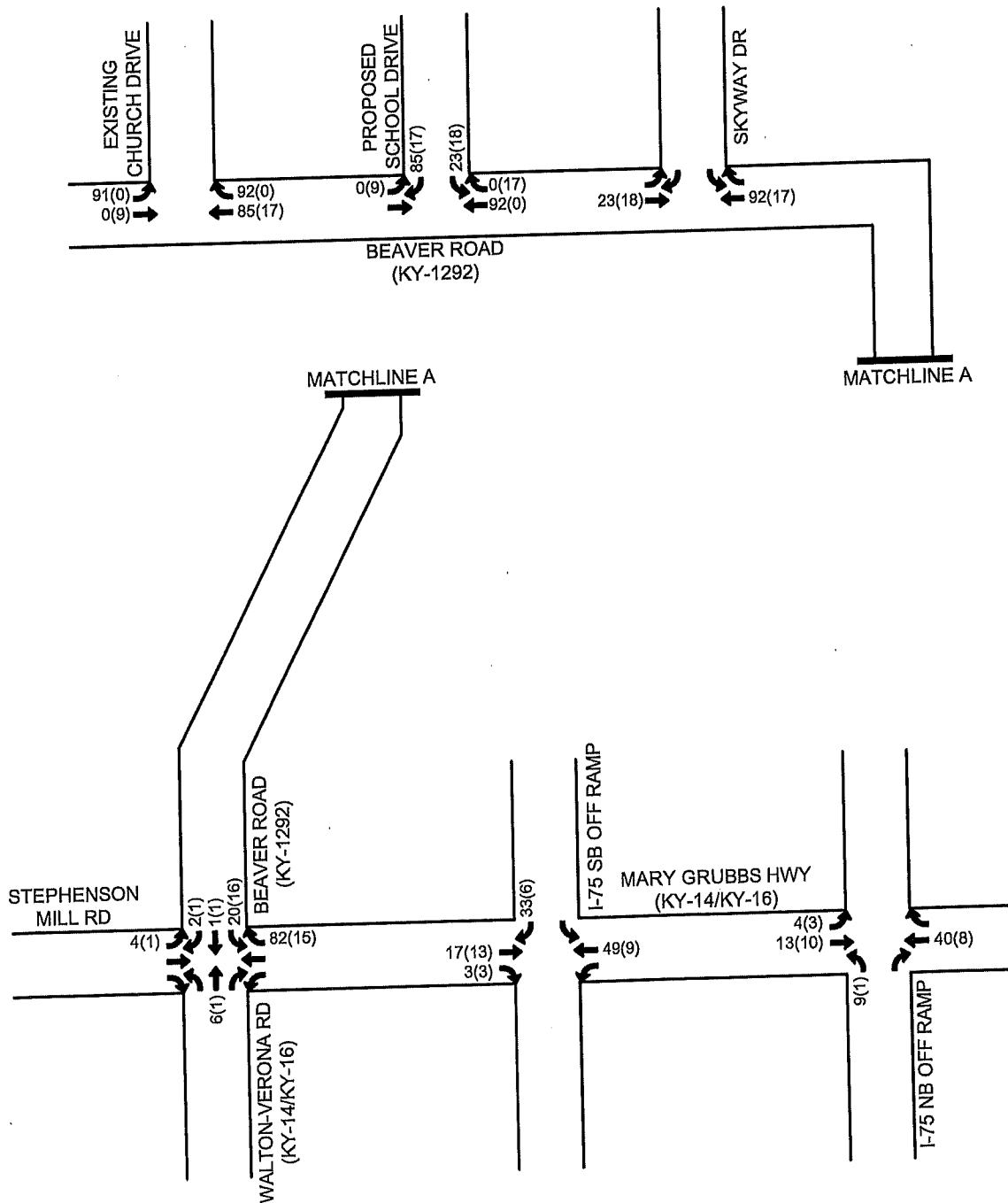
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### EXHIBIT B

SUMMARY OF TRIPS			
	ENTER	EXIT	TOTAL
AM PEAK	183	108	291
PM PEAK	26	35	61



Proposed Development  
360 Student Private School (K-12)  
Addition





# VIOX & VIOX

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## OUR LADY OF ASSUMPTION BOYS ACADEMY

### TRAFFIC IMPACT STUDY

CITY OF WALTON, BOONE COUNTY, KENTUCKY

2022 BASE VOLUMES AM(PM)

Project No:  
110714007

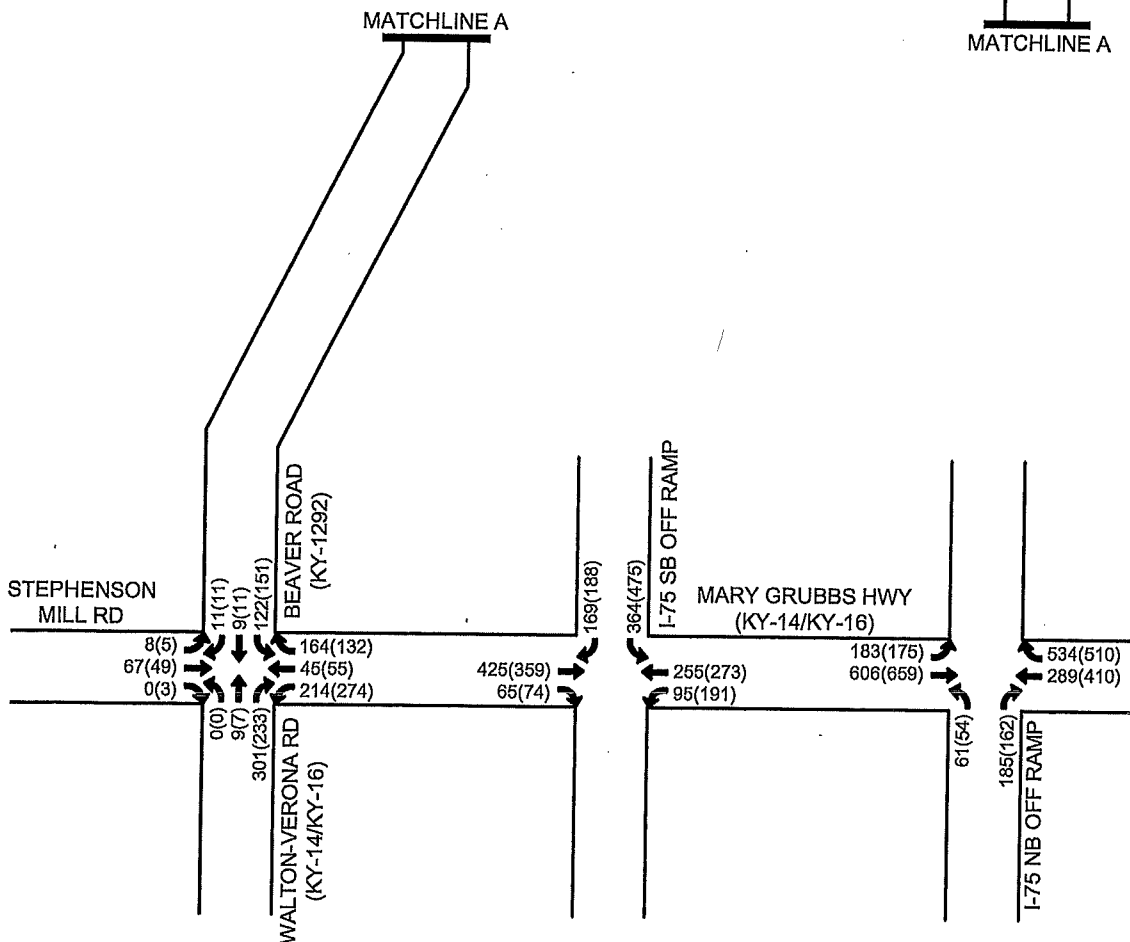
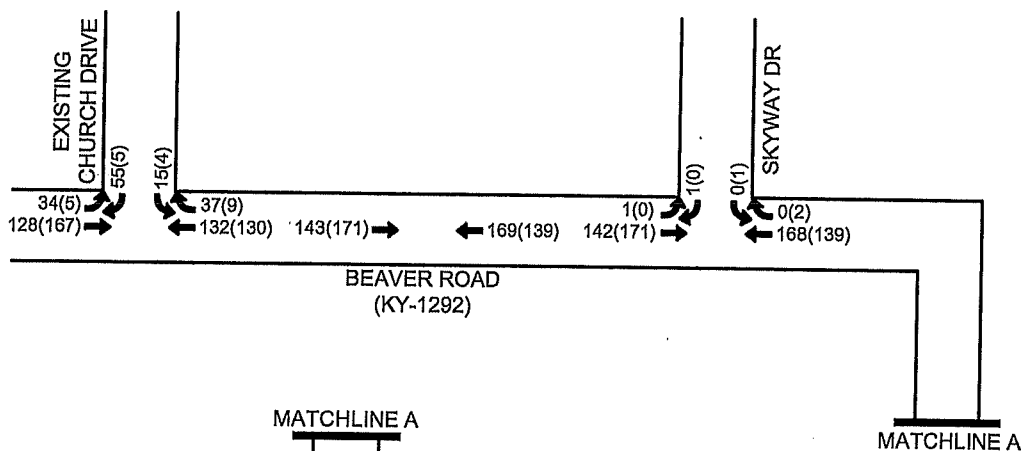
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Date:  
8/26/22

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JWG

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# EXHIBIT 1





# VIOX & VIOX

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## OUR LADY OF ASSUMPTION BOYS ACADEMY TRAFFIC IMPACT STUDY CITY OF WALTON, BOONE COUNTY, KENTUCKY

2024 NO BUILD VOLUMES AM(PM)

Project No:  
110714007

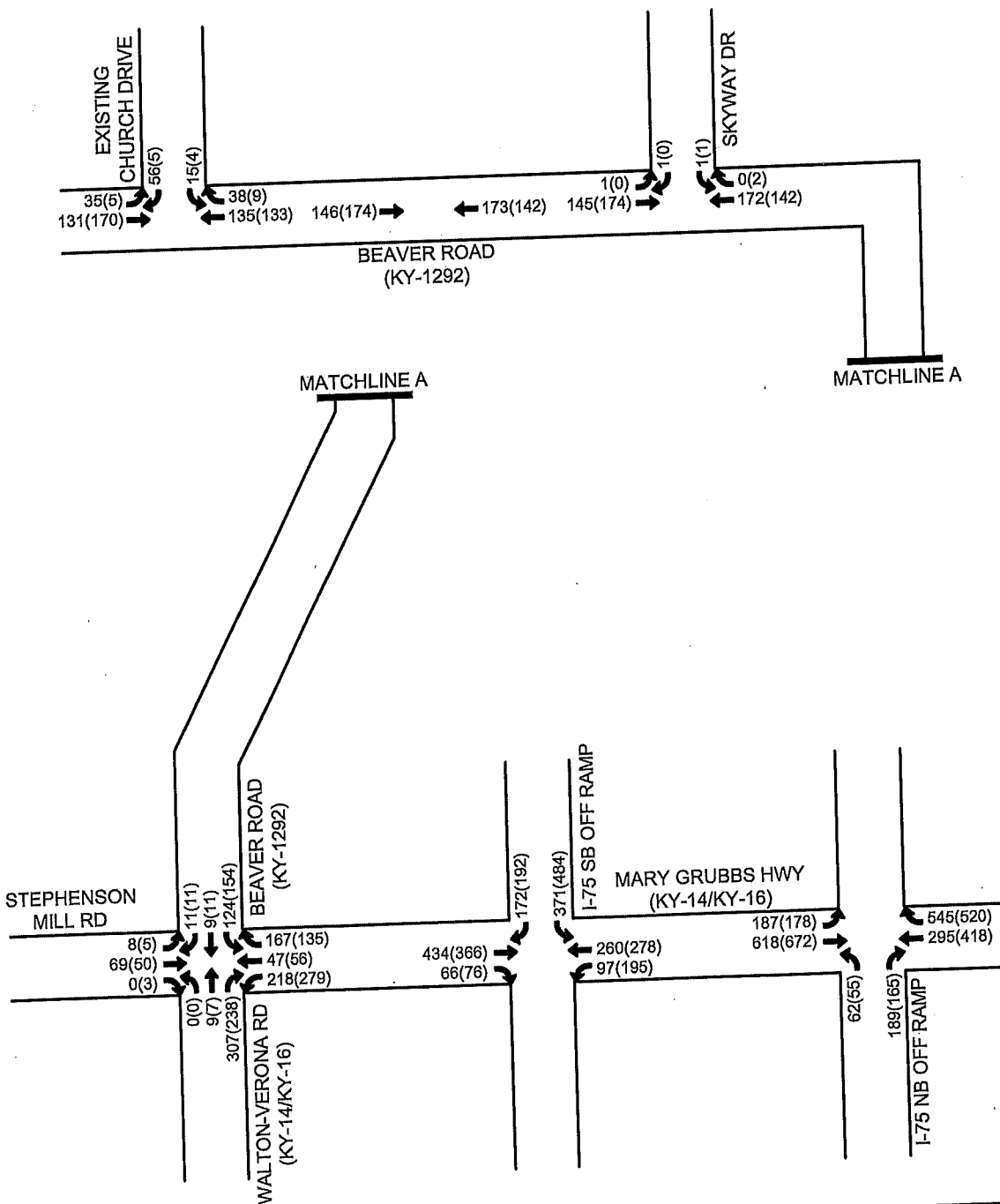
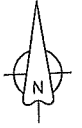
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8/26/22

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JWG

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### EXHIBIT 2





# VIOX & VIOX

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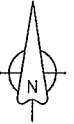
## OUR LADY OF ASSUMPTION BOYS ACADEMY TRAFFIC IMPACT STUDY CITY OF WALTON, BOONE COUNTY, KENTUCKY 2024 BUILD VOLUMES AM(PM)

Project No:  
110714007  
Date:  
8/26/22

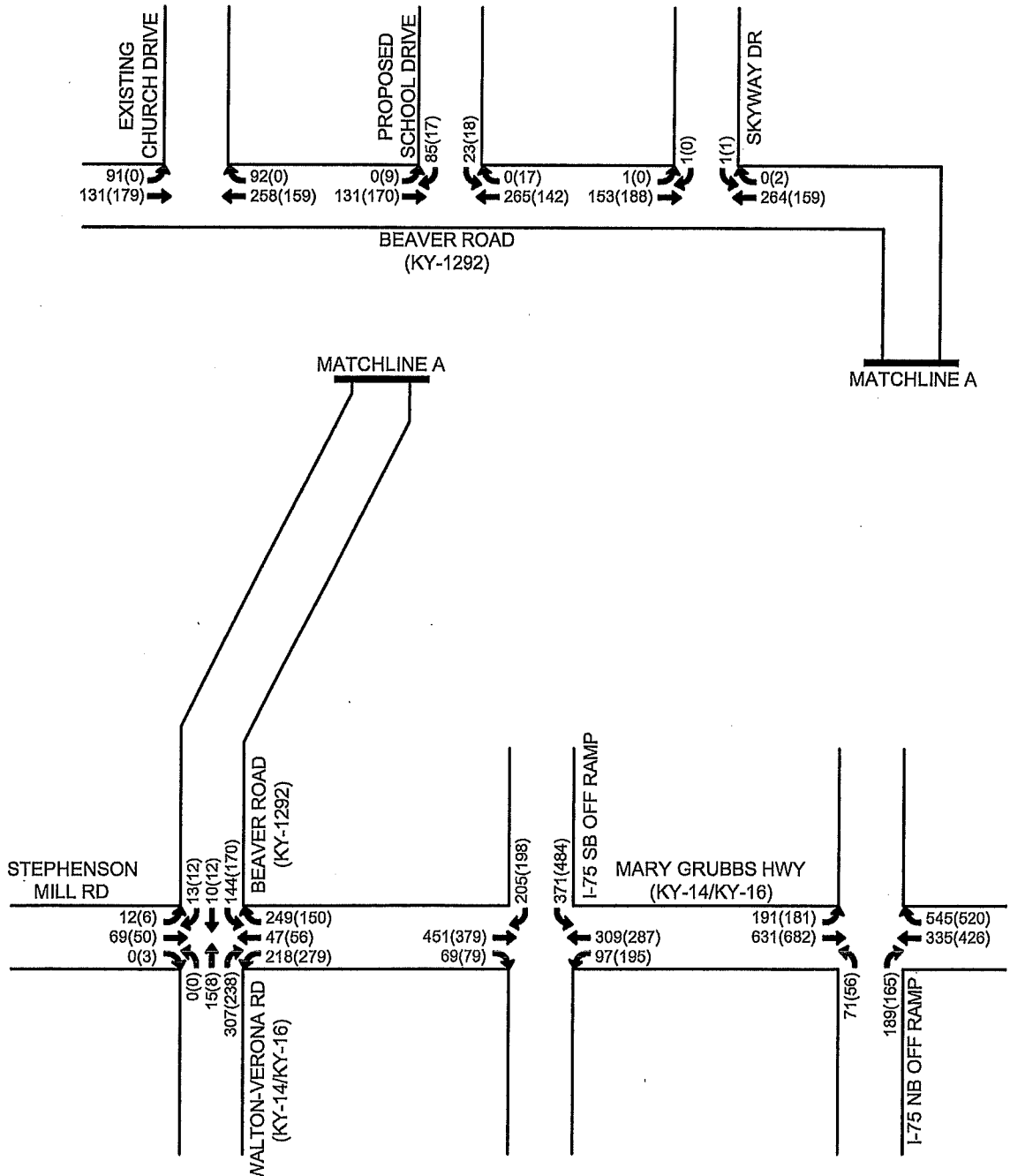
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**EXHIBIT 3**

SUMMARY OF TRIPS			
	ENTER	EXIT	TOTAL
AM PEAK	183	108	291
PM PEAK	26	35	61



Proposed Development  
360 Student Private School (K-12)  
Addition





# VIOX & VIOX

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## OUR LADY OF ASSUMPTION BOYS ACADEMY TRAFFIC IMPACT STUDY CITY OF WALTON, BOONE COUNTY, KENTUCKY 2034 NO BUILD VOLUMES AM(PM)

Project No:  
110714007

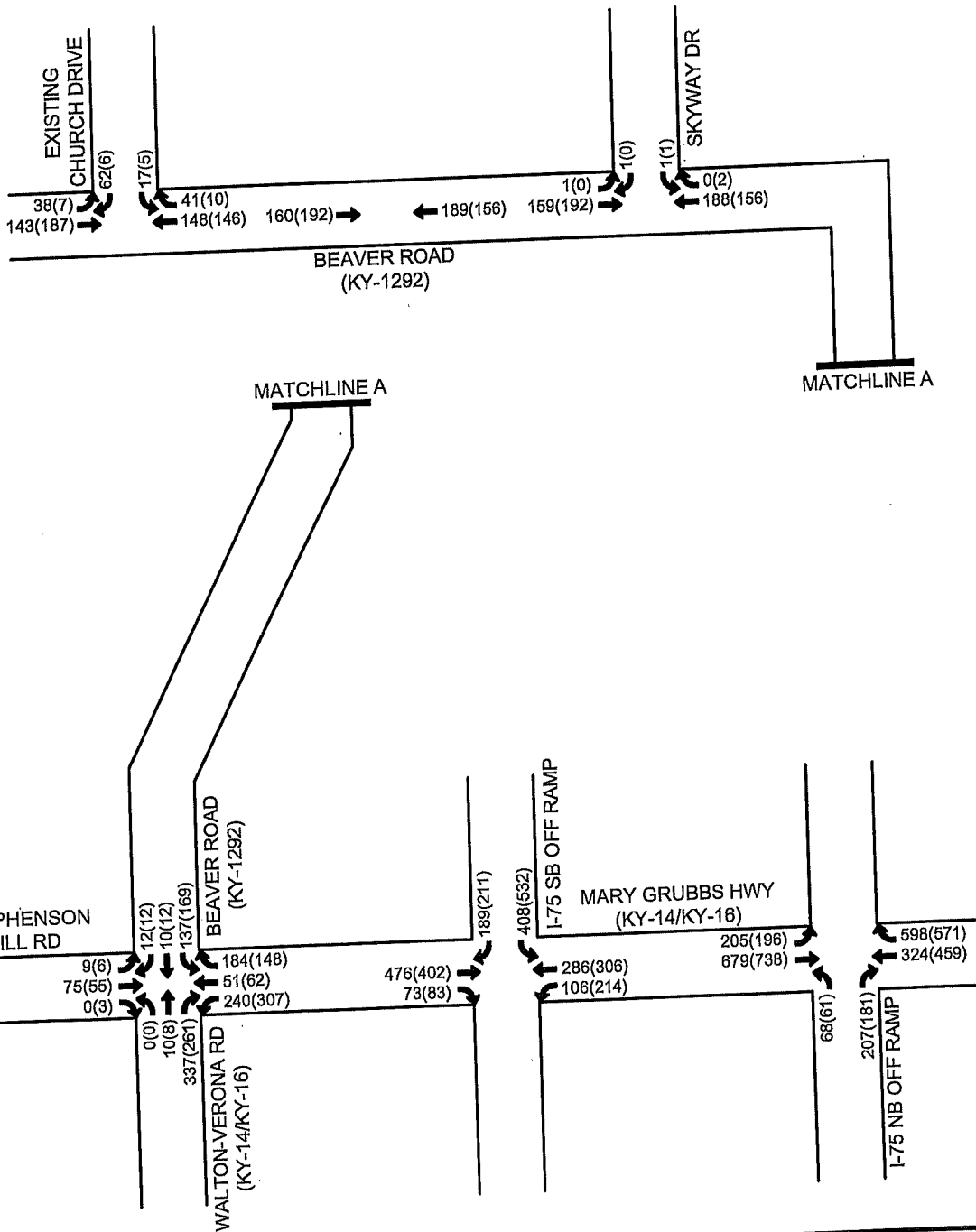
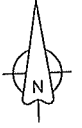
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Date:  
8/26/22

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### EXHIBIT 4





# VIOX & VIOX

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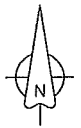
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Project No:  
110714007  
Date:  
8/26/22

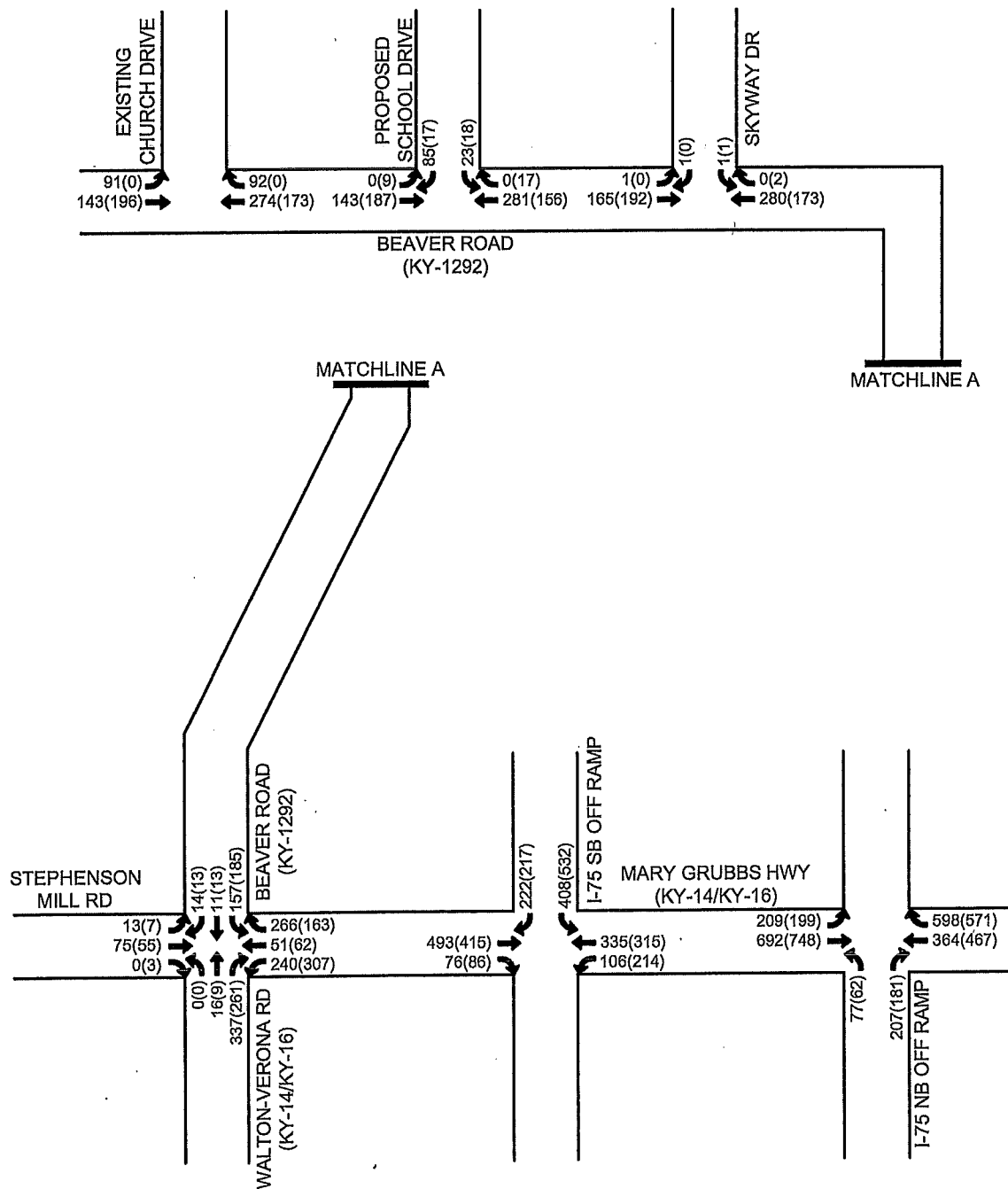
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**EXHIBIT 5**

SUMMARY OF TRIPS			
	ENTER	EXIT	TOTAL
AM PEAK	183	108	291
PM PEAK	26	35	61



**Proposed Development**  
360 Student Private School (K-12)  
Addition





# APPENDIX C

## Synchro Analyses



**VIOX & VIOX**

Civil Engineers, Surveyors, and Landscape Architects

406 Erlanger Road - Erlanger, Kentucky 41016

Ph (859) 727-3283 • Fax (859) 727-8452 • [www.vioxinc.com](http://www.vioxinc.com)

Summary of All Intervals

Run Number	1	2	3	4	5	6	7
Start Time	7:05	7:05	7:05	7:05	7:05	7:05	7:05
End Time	8:15	8:15	8:15	8:15	8:15	8:15	8:15
Total Time (min)	70	70	70	70	70	70	70
Time Recorded (min)	60	60	60	60	60	60	60
# of Intervals	5	5	5	5	5	5	5
# of Recorded Intervals	4	4	4	4	4	4	4
Vehs Entered	4101	4135	4213	4053	4144	4144	4267
Vehs Exited	4087	4080	4072	4034	4159	4104	4257
Starting Vehs	104	103	116	108	128	111	125
Ending Vehs	118	158	257	127	113	151	135
Travel Distance (mi)	2125	2136	2144	2105	2143	2128	2207
Travel Time (hr)	120.2	156.8	222.5	121.6	122.9	127.3	140.1
Total Delay (hr)	61.5	98.0	163.4	63.8	63.7	68.9	79.2
Total Stops	3428	3689	3891	3413	3373	3422	3808
Fuel Used (gal)	91.8	100.4	114.4	91.4	92.8	92.7	98.7

Summary of All Intervals

Run Number	8	9	10	Avg
Start Time	7:05	7:05	7:05	7:05
End Time	8:15	8:15	8:15	8:15
Total Time (min)	70	70	70	70
Time Recorded (min)	60	60	60	60
# of Intervals	5	5	5	5
# of Recorded Intervals	4	4	4	4
Vehs Entered	4114	4178	4081	4144
Vehs Exited	4105	4222	4057	4118
Starting Vehs	137	135	107	110
Ending Vehs	146	91	131	136
Travel Distance (mi)	2122	2185	2107	2140
Travel Time (hr)	116.1	131.5	126.3	138.5
Total Delay (hr)	57.7	71.2	68.3	79.6
Total Stops	3363	3431	3555	3534
Fuel Used (gal)	90.9	96.2	92.7	96.2

Interval #0 Information Seeding

Start Time 7:05  
 End Time 7:15  
 Total Time (min) 10  
 Volumes adjusted by Growth Factors, Anti PHF.  
 No data recorded this interval.

**Interval #1 Information Recording**

Start Time 7:15  
 End Time 7:30  
 Total Time (min) 15  
 Volumes adjusted by Growth Factors, Anti PHF.

Run Number	1	2	3	4	5	6	7
Vehs Entered	978	1110	1060	983	1003	1026	1090
Vehs Exited	984	1024	1011	976	1020	1028	1035
Starting Vehs	104	103	116	108	128	111	125
Ending Vehs	98	189	165	115	111	109	180
Travel Distance (mi)	515	561	533	508	522	521	548
Travel Time (hr)	29.7	37.3	42.4	27.4	29.2	26.3	35.2
Total Delay (hr)	15.4	22.0	27.8	13.4	14.7	12.0	20.1
Total Stops	850	936	803	811	811	785	945
Fuel Used (gal)	22.3	25.3	25.3	21.8	22.5	21.8	24.5

**Interval #1 Information Recording**

Start Time 7:15  
 End Time 7:30  
 Total Time (min) 15  
 Volumes adjusted by Growth Factors, Anti PHF.

Run Number	8	9	10	Avg
Vehs Entered	1023	1047	1032	1035
Vehs Exited	1057	1058	984	1017
Starting Vehs	137	135	107	110
Ending Vehs	103	124	155	122
Travel Distance (mi)	540	551	525	533
Travel Time (hr)	30.7	33.2	30.9	32.2
Total Delay (hr)	15.8	18.0	16.4	17.6
Total Stops	846	848	894	851
Fuel Used (gal)	23.4	24.2	22.9	23.4

**Interval #2 Information**

Start Time 7:30  
 End Time 7:45  
 Total Time (min) 15  
 Volumes adjusted by PHF, Growth Factors.

Run Number	1	2	3	4	5	6	7
Vehs Entered	1076	983	1060	1007	1089	1006	1084
Vehs Exited	1024	1033	980	989	1045	1003	1125
Starting Vehs	98	189	165	115	111	109	180
Ending Vehs	150	139	245	133	155	112	139
Travel Distance (mi)	544	519	530	516	553	525	585
Travel Time (hr)	29.2	43.8	49.7	28.1	31.0	27.9	37.6
Total Delay (hr)	14.2	29.4	35.1	13.9	15.9	13.5	21.5
Total Stops	859	924	945	829	893	803	1028
Fuel Used (gal)	23.0	25.9	26.9	21.9	23.5	21.9	26.3

**Interval #2 Information**

Start Time 7:30  
 End Time 7:45  
 Total Time (min) 15  
 Volumes adjusted by PHF, Growth Factors.

Run Number	8	9	10	Avg
Vehs Entered	1059	1030	988	1036
Vehs Exited	1031	1027	1017	1028
Starting Vehs	103	124	155	122
Ending Vehs	131	127	126	140
Travel Distance (mi)	540	528	516	536
Travel Time (hr)	28.8	29.2	32.4	33.8
Total Delay (hr)	13.9	14.6	18.2	19.0
Total Stops	862	835	904	888
Fuel Used (gal)	22.9	22.8	22.8	23.8

**Interval #3 Information**

Start Time 7:45  
 End Time 8:00  
 Total Time (min) 15  
 Volumes adjusted by Growth Factors, Anti PHF.

	1	2	3	4	5	6	7
<b>Run Number</b>	1002	996	1024	1014	1051	1041	1060
Vehs Entered	1044	1000	1029	1021	1088	1003	1037
Vehs Exited	150	139	245	133	155	112	139
Starting Vehs	108	135	240	126	118	150	162
Ending Vehs	530	521	528	531	554	531	538
Travel Distance (mi)	32.1	35.9	59.5	29.7	35.0	33.8	32.3
Travel Time (hr)	17.5	21.6	45.0	15.3	19.9	19.2	17.5
Total Delay (hr)	886	847	950	843	884	908	923
Total Stops	23.7	23.9	29.5	22.9	24.9	23.6	23.6
Fuel Used (gal)							

**Interval #3 Information**

Start Time 7:45  
 End Time 8:00  
 Total Time (min) 15  
 Volumes adjusted by Growth Factors, Anti PHF.

	8	9	10	Avg
<b>Run Number</b>	976	1034	1006	1019
Vehs Entered	1015	1014	1018	1026
Vehs Exited	131	127	126	140
Starting Vehs	92	147	114	133
Ending Vehs	509	535	531	531
Travel Distance (mi)	26.4	33.0	31.1	34.9
Travel Time (hr)	12.3	18.3	16.5	20.3
Total Delay (hr)	817	828	844	870
Total Stops	21.7	23.5	23.3	24.1
Fuel Used (gal)				

# SimTraffic Simulation Summary

08/01/2022

## Interval #4 Information

Start Time 8:00  
 End Time 8:15  
 Total Time (min) 15  
 Volumes adjusted by Growth Factors, Anti PHF.

Run Number	1	2	3	4	5	6	7
Vehs Entered	1045	1046	1069	1049	1001	1071	1033
Vehs Exited	1035	1023	1052	1048	1006	1070	1060
Starting Vehs	108	135	240	126	118	150	162
Ending Vehs	118	158	257	127	113	151	135
Travel Distance (mi)	536	535	554	551	513	551	537
Travel Time (hr)	29.2	39.8	70.9	36.4	27.6	39.3	34.9
Total Delay (hr)	14.4	25.0	55.6	21.2	13.3	24.3	20.2
Total Stops	833	982	1193	930	785	926	912
Fuel Used (gal)	22.8	25.4	32.8	24.8	22.0	25.4	24.3

## Interval #4 Information

Start Time 8:00  
 End Time 8:15  
 Total Time (min) 15  
 Volumes adjusted by Growth Factors, Anti PHF.

Run Number	8	9	10	Avg
Vehs Entered	1056	1067	1055	1046
Vehs Exited	1002	1123	1038	1044
Starting Vehs	92	147	114	133
Ending Vehs	146	91	131	136
Travel Distance (mi)	532	570	534	541
Travel Time (hr)	30.3	36.1	31.9	37.7
Total Delay (hr)	15.6	20.4	17.2	22.7
Total Stops	838	920	913	922
Fuel Used (gal)	23.0	25.7	23.6	25.0

100: WALTON VERONA RD/BEAVER RD & STEPHENSON MILL RD/MARY GRUBBS HWY (KY-14)

Movement	EBL	EBT	WBL	WBT	WBR	NBT	NBR	SBL	SBT	SBR	All
Denied Del/Veh (s)	0.1	0.1	0.4	0.1	0.2	22.7	13.6	0.0	0.0	0.0	4.7
Total Del/Veh (s)	83.0	101.8	34.6	34.4	50.6	122.1	130.3	86.1	78.1	61.1	82.2

101: I-75 SB ON RAMP/I-75 SB OFF RAMP & MARY GRUBBS HWY (KY-14) Performance by mover

Movement	EBT	EBR	WBL	WBT	SBL	SBR	All
Denied Del/Veh (s)	0.0	0.0	0.0	0.9	0.0	0.0	0.2
Total Del/Veh (s)	10.6	6.4	109.7	170.8	69.7	67.7	69.5

102: I-75 NB OFF RAMP/I-75 NB ON RAMP & MARY GRUBBS HWY (KY-14) Performance by mover

Movement	EBL	EBT	WBT	WBR	NBL	NBR	All
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Del/Veh (s)	28.5	12.4	53.7	22.7	143.9	41.5	30.1

200: BEAVER RD & CHURCH DRIVE (EX) Performance by movement

Movement	EBL	EBR	NWL	NWR	SWL	SWR	All
Denied Del/Veh (s)	0.2	0.2	0.0	0.0	0.1	0.2	0.1
Total Del/Veh (s)	1.6	0.8	0.4	0.1	6.3	3.7	1.3

201: BEAVER RD & SCHOOL DRIVE (PROP) Performance by movement

Movement	EBT	WBT	All
Denied Del/Veh (s)	0.0	0.0	0.0
Total Del/Veh (s)	0.1	0.2	0.1

Total Zone Performance

Denied Del/Veh (s)	7.4
Total Del/Veh (s)	2273.9

Queuing and Blocking Report

08/01/2022

Intersection: 100: WALTON VERONA RD/BEAVER RD & STEPHENSON MILL RD/MARY GRUBBS H

Movement	EB	WB	WB	NB	NB	SB	SB
Directions Served	LTR	LT	R	LT	R	LTR	T
Maximum Queue (ft)	222	130	120	188	803	318	158
Average Queue (ft)	110	108	99	14	521	187	15
95th Queue (ft)	199	129	136	85	1142	313	95
Link Distance (ft)	1681	106	106		1545	216	795
Upstream Blk Time (%)		55	41		6	15	
Queuing Penalty (veh)		117	87		0	0	
Storage Bay Dist (ft)				110			
Storage Blk Time (%)					61		
Queuing Penalty (veh)					6		

Intersection: 101: I-75 SB ON RAMP/I-75 SB OFF RAMP & MARY GRUBBS HWY (KY-14)

Movement	EB	EB	WB	WB	WB	SB	SB
Directions Served	T	TR	L	T	T	L	R
Maximum Queue (ft)	127	125	225	556	277	604	447
Average Queue (ft)	67	54	104	357	119	350	211
95th Queue (ft)	147	128	254	659	269	545	417
Link Distance (ft)	106	106		532	532	748	748
Upstream Blk Time (%)	12	6		24			0
Queuing Penalty (veh)	29	15		43			0
Storage Bay Dist (ft)			110				
Storage Blk Time (%)			4	69			
Queuing Penalty (veh)			5	66			

Intersection: 102: I-75 NB OFF RAMP/I-75 NB ON RAMP & MARY GRUBBS HWY (KY-14)

Movement	EB	EB	EB	WB	WB	B3	B3	NB	NB
Directions Served	L	T	T	T	TR	T	T	L	R
Maximum Queue (ft)	239	275	221	281	296	374	460	290	242
Average Queue (ft)	121	109	111	150	222	75	124	102	123
95th Queue (ft)	234	235	223	282	337	419	485	273	205
Link Distance (ft)		532	532	198	198	1003	1003	576	576
Upstream Blk Time (%)				21	24	2	2	0	
Queuing Penalty (veh)				0	0	0	0	0	
Storage Bay Dist (ft)	110								
Storage Blk Time (%)	16	6							
Queuing Penalty (veh)	48	12							

Intersection: 200: BEAVER RD & CHURCH DRIVE (EX)

Movement	EB	NW	SW
Directions Served	LR	LR	LR
Maximum Queue (ft)	30	28	57
Average Queue (ft)	3	2	29
95th Queue (ft)	16	14	52
Link Distance (ft)	634	173	178
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 201: BEAVER RD & SCHOOL DRIVE (PROP)

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Zone Summary

Zone wide Queuing Penalty: 427

Intersection: 100: WALTON VERONA RD/BEAVER RD & STEPHENSON MILL RD/MARY GRUBBS H

Phase	1	7	8	9
Movement(s) Served	NBTL	WBTL	SBTL	EBTL
Maximum Green (s)	54.0	81.0	35.0	13.5
Minimum Green (s)	6.0	6.0	6.0	6.0
Recall	None	None	None	None
Avg. Green (s)	63.6	65.5	36.5	19.4
g/C Ratio	-0.01	NA	NA	NA
Cycles Skipped (%)	11	0	0	0
Cycles @ Minimum (%)	0	0	0	0
Cycles Maxed Out (%)	22	7	7	7
Cycles with Peds (%)	0	0	0	0

**Controller Summary**

Average Cycle Length (s): NA  
 Number of Complete Cycles : 0

Intersection: 101: I-75 SB ON RAMP/I-75 SB OFF RAMP & MARY GRUBBS HWY (KY-14)

Phase	1	2	6	8
Movement(s) Served	WBL	EBT	WBTL	SBL
Maximum Green (s)	13.5	113.5	133.5	70.0
Minimum Green (s)	6.0	6.0	30.0	8.0
Recall	None	C-Max	C-Max	None
Avg. Green (s)	12.0	131.4	147.2	63.6
g/C Ratio	-0.01	NA	NA	NA
Cycles Skipped (%)	40	0	0	0
Cycles @ Minimum (%)	0	0	0	0
Cycles Maxed Out (%)	13	100	100	43
Cycles with Peds (%)	0	0	0	0

**Controller Summary**

Average Cycle Length (s): NA  
 Number of Complete Cycles : 0

Intersection: 102: I-75 NB OFF RAMP/I-75 NB ON RAMP & MARY GRUBBS HWY (KY-14)

Phase	1	3	4	8
Movement(s) Served	NBL	EBL	WBT	EBTL
Maximum Green (s)	23.0	23.5	43.3	73.3
Minimum Green (s)	8.0	8.0	30.0	30.0
Recall	None	C-Max	None	C-Max
Avg. Green (s)	20.6	26.8	43.3	78.2
g/C Ratio	NA	NA	NA	NA
Cycles Skipped (%)	0	0	0	0
Cycles @ Minimum (%)	0	0	0	0
Cycles Maxed Out (%)	56	100	100	100
Cycles with Peds (%)	0	0	0	0

**Controller Summary**

Average Cycle Length (s): NA  
 Number of Complete Cycles : 0

100: WALTON VERONA RD/BEAVER RD & STEPHENSON MILL RD/MARY GRUBBS HWY (KY-14) I

Approach	EB	WB	NB	SB	All
Denied Del/Veh (s)	0.1	0.3	13.9	0.0	4.7
Total Del/Veh (s)	99.9	40.9	130.0	84.1	82.2

101: I-75 SB ON RAMP/I-75 SB OFF RAMP & MARY GRUBBS HWY (KY-14) Performance by approach

Approach	EB	WB	SB	All
Denied Del/Veh (s)	0.0	0.6	0.0	0.2
Total Del/Veh (s)	10.0	155.0	69.1	69.5

102: I-75 NB OFF RAMP/I-75 NB ON RAMP & MARY GRUBBS HWY (KY-14) Performance by approach

Approach	EB	WB	NB	All
Denied Del/Veh (s)	0.0	0.0	0.0	0.0
Total Del/Veh (s)	15.9	33.4	65.7	30.1

200: BEAVER RD & CHURCH DRIVE (EX) Performance by approach

Approach	EB	NW	SW	All
Denied Del/Veh (s)	0.2	0.0	0.2	0.1
Total Del/Veh (s)	1.0	0.3	4.3	1.3

201: BEAVER RD & SCHOOL DRIVE (PROP) Performance by approach

Approach	EB	WB	All
Denied Del/Veh (s)	0.0	0.0	0.0
Total Del/Veh (s)	0.1	0.2	0.1

Total Zone Performance

Denied Del/Veh (s)	7.4
Total Del/Veh (s)	2273.9

Summary of All Intervals

Run Number	1	2	3	4	5	6	7
Start Time	4:35	4:35	4:35	4:35	4:35	4:35	4:35
End Time	5:45	5:45	5:45	5:45	5:45	5:45	5:45
Total Time (min)	70	70	70	70	70	70	70
Time Recorded (min)	60	60	60	60	60	60	60
# of Intervals	5	5	5	5	5	5	5
# of Recorded Intervals	4	4	4	4	4	4	4
Vehs Entered	4136	4170	4221	4184	4176	4197	4288
Vehs Exited	4086	4158	4178	4116	4145	4190	4298
Starting Vehs	104	116	134	133	107	110	142
Ending Vehs	154	128	177	201	138	117	132
Travel Distance (mi)	2179	2201	2220	2191	2207	2226	2283
Travel Time (hr)	141.4	131.4	158.9	137.7	135.4	142.5	132.4
Total Delay (hr)	82.3	71.5	98.4	78.1	75.3	81.9	70.2
Total Stops	3834	3644	3986	3805	3687	3754	3669
Fuel Used (gal)	97.7	96.6	103.6	97.6	97.2	99.0	98.3

Summary of All Intervals

Run Number	8	9	10	Avg
Start Time	4:35	4:35	4:35	4:35
End Time	5:45	5:45	5:45	5:45
Total Time (min)	70	70	70	70
Time Recorded (min)	60	60	60	60
# of Intervals	5	5	5	5
# of Recorded Intervals	4	4	4	4
Vehs Entered	4105	4220	4233	4192
Vehs Exited	4093	4185	4219	4167
Starting Vehs	104	119	94	107
Ending Vehs	116	154	108	136
Travel Distance (mi)	2164	2225	2213	2211
Travel Time (hr)	122.9	134.9	121.6	135.9
Total Delay (hr)	63.9	73.9	61.2	75.7
Total Stops	3603	3709	3515	3719
Fuel Used (gal)	93.4	97.7	94.6	97.6

Interval #0 Information Seeding

Start Time 4:35  
 End Time 4:45  
 Total Time (min) 10  
 Volumes adjusted by Growth Factors, Anti PHF.  
 No data recorded this interval.

**Interval #1 Information Recording**

Start Time 4:45  
 End Time 5:00  
 Total Time (min) 15  
 Volumes adjusted by Growth Factors, Anti PHF.

Run Number	1	2	3	4	5	6	7
Vehs Entered	1047	1071	1057	1005	1056	1070	1048
Vehs Exited	1015	1049	1040	1040	1040	1053	1072
Starting Vehs	104	116	134	133	107	110	142
Ending Vehs	136	138	151	98	123	127	118
Travel Distance (mi)	538	560	556	540	553	563	566
Travel Time (hr)	28.9	34.6	34.5	31.6	34.7	33.3	35.0
Total Delay (hr)	14.3	19.4	19.4	16.8	19.6	18.0	19.6
Total Stops	870	938	903	881	906	962	934
Fuel Used (gal)	22.7	25.0	25.1	23.7	24.4	24.5	25.2

**Interval #1 Information Recording**

Start Time 4:45  
 End Time 5:00  
 Total Time (min) 15  
 Volumes adjusted by Growth Factors, Anti PHF.

Run Number	8	9	10	Avg
Vehs Entered	1056	1014	1061	1046
Vehs Exited	1050	1014	1030	1042
Starting Vehs	104	119	94	107
Ending Vehs	110	119	125	120
Travel Distance (mi)	559	537	555	553
Travel Time (hr)	28.9	31.7	29.8	32.3
Total Delay (hr)	13.7	17.1	14.8	17.3
Total Stops	882	890	880	902
Fuel Used (gal)	23.4	23.5	23.4	24.1

Interval #2 Information

Start Time 5:00  
 End Time 5:15  
 Total Time (min) 15  
 Volumes adjusted by PHF, Growth Factors.

Run Number	1	2	3	4	5	6	7
Vehs Entered	1053	1007	1062	1033	1082	1046	1065
Vehs Exited	1040	1020	1066	1006	1064	1032	1073
Starting Vehs	136	138	151	98	123	127	118
Ending Vehs	149	125	147	125	141	141	110
Travel Distance (mi)	555	536	551	535	571	544	565
Travel Time (hr)	36.6	35.6	35.1	27.3	40.4	36.1	32.6
Total Delay (hr)	21.6	20.9	20.0	12.7	24.8	21.2	17.2
Total Stops	985	957	938	833	1107	923	906
Fuel Used (gal)	25.0	24.7	24.6	22.2	26.6	24.2	24.4

Interval #2 Information

Start Time 5:00  
 End Time 5:15  
 Total Time (min) 15  
 Volumes adjusted by PHF, Growth Factors.

Run Number	8	9	10	Avg
Vehs Entered	1033	1094	1036	1049
Vehs Exited	1025	1081	1031	1044
Starting Vehs	110	119	125	120
Ending Vehs	118	132	130	124
Travel Distance (mi)	544	579	540	552
Travel Time (hr)	32.4	32.9	32.0	34.1
Total Delay (hr)	17.6	17.1	17.2	19.0
Total Stops	919	949	889	940
Fuel Used (gal)	23.7	24.7	23.7	24.4

# SimTraffic Simulation Summary

08/01/2022

## Interval #3 Information

Start Time 5:15  
 End Time 5:30  
 Total Time (min) 15  
 Volumes adjusted by Growth Factors, Anti PHF.

Run Number	1	2	3	4	5	6	7
Vehs Entered	969	1006	1031	1045	1011	1034	1091
Vehs Exited	982	1031	995	1018	1043	1031	1060
Starting Vehs	149	125	147	125	141	141	110
Ending Vehs	136	100	183	152	109	144	141
Travel Distance (mi)	532	535	535	553	546	561	573
Travel Time (hr)	36.6	27.4	44.9	36.4	28.8	41.1	31.2
Total Delay (hr)	22.2	12.8	30.4	21.3	14.0	25.8	15.7
Total Stops	965	801	1003	955	843	982	922
Fuel Used (gal)	24.2	22.3	26.5	25.1	23.3	26.1	24.2

## Interval #3 Information

Start Time 5:15  
 End Time 5:30  
 Total Time (min) 15  
 Volumes adjusted by Growth Factors, Anti PHF.

Run Number	8	9	10	Avg
Vehs Entered	968	1072	1068	1028
Vehs Exited	975	1073	1085	1031
Starting Vehs	118	132	130	124
Ending Vehs	111	131	113	128
Travel Distance (mi)	507	566	566	547
Travel Time (hr)	28.1	34.7	30.8	34.0
Total Delay (hr)	14.3	19.2	15.4	19.1
Total Stops	838	936	889	914
Fuel Used (gal)	21.9	24.9	24.3	24.3

**Interval #4 Information**

Start Time 5:30  
 End Time 5:45  
 Total Time (min) 15  
 Volumes adjusted by Growth Factors, Anti PHF.

Run Number	1	2	3	4	5	6	7
Vehs Entered	1067	1086	1071	1101	1027	1047	1084
Vehs Exited	1049	1058	1077	1052	998	1074	1093
Starting Vehs	136	100	183	152	109	144	141
Ending Vehs	154	128	177	201	138	117	132
Travel Distance (mi)	554	570	578	562	537	557	579
Travel Time (hr)	39.3	33.8	44.4	42.5	31.4	32.0	33.5
Total Delay (hr)	24.3	18.3	28.6	27.2	16.8	16.9	17.7
Total Stops	1014	948	1142	1136	831	887	907
Fuel Used (gal)	25.8	24.7	27.5	26.7	22.9	24.2	24.6

**Interval #4 Information**

Start Time 5:30  
 End Time 5:45  
 Total Time (min) 15  
 Volumes adjusted by Growth Factors, Anti PHF.

Run Number	8	9	10	Avg
Vehs Entered	1048	1040	1068	1061
Vehs Exited	1043	1017	1073	1051
Starting Vehs	111	131	113	128
Ending Vehs	116	154	108	136
Travel Distance (mi)	554	543	552	559
Travel Time (hr)	33.5	35.5	28.9	35.5
Total Delay (hr)	18.4	20.5	13.8	20.2
Total Stops	964	934	857	962
Fuel Used (gal)	24.5	24.6	23.3	24.9

SimTraffic Performance Report

08/01/2022

100: WALTON VERONA RD/BEAVER RD & STEPHENSON MILL RD/MARY GRUBBS HWY (KY-14) I

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBT	NBR	SBL	SBT	SBR	All
Denied Del/Veh (s)	0.3	0.2	0.2	0.5	0.3	0.5	3.2	0.3	0.0	0.0	0.0	0.3
Total Del/Veh (s)	93.6	107.3	85.3	27.8	30.4	47.6	77.5	97.6	81.8	82.2	72.5	64.3

101: I-75 SB ON RAMP/I-75 SB OFF RAMP & MARY GRUBBS HWY (KY-14) Performance by movement

Movement	EBT	EBR	WBL	WBT	SBL	SBR	All
Denied Del/Veh (s)	0.0	0.0	0.1	2.5	0.0	0.0	0.5
Total Del/Veh (s)	12.6	9.6	92.3	139.2	81.2	54.8	70.0

102: I-75 NB OFF RAMP/I-75 NB ON RAMP & MARY GRUBBS HWY (KY-14) Performance by movement

Movement	EBL	EBT	WBT	WBR	NBL	NBR	All
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Del/Veh (s)	26.2	12.1	51.5	19.5	95.8	39.5	28.1

200: BEAVER RD & CHURCH DRIVE (EX) Performance by movement

Movement	EBL	EBR	NWL	NWT	NWR	SWL	SWR	All
Denied Del/Veh (s)	0.2	0.2	0.0	0.0	0.0	0.1	0.1	0.1
Total Del/Veh (s)	1.7	0.7	0.2	0.4	0.1	6.2	3.3	0.6

201: BEAVER RD & SCHOOL DRIVE (PROP) Performance by movement

Movement	EBT	WBT	All
Denied Del/Veh (s)	0.0	0.0	0.0
Total Del/Veh (s)	0.0	0.2	0.1

Total Zone Performance

Denied Del/Veh (s)	2.2
Total Del/Veh (s)	2302.8

Intersection: 100: WALTON VERONA RD/BEAVER RD & STEPHENSON MILL RD/MARY GRUBBS F

Movement	EB	WB	WB	NB	NB	SB	B6
Directions Served	LTR	LT	R	LT	R	LTR	T
Maximum Queue (ft)	212	123	120	107	603	301	105
Average Queue (ft)	82	107	87	8	322	186	9
95th Queue (ft)	170	134	140	59	557	306	52
Link Distance (ft)	1681	106	106		1545	216	795
Upstream Blk Time (%)		50	27			12	
Queuing Penalty (veh)		115	63			0	
Storage Bay Dist (ft)				110			
Storage Blk Time (%)					56		
Queuing Penalty (veh)					4		

Intersection: 101: I-75 SB ON RAMP/I-75 SB OFF RAMP & MARY GRUBBS HWY (KY-14)

Movement	EB	EB	WB	WB	WB	SB	SB	B20
Directions Served	T	TR	L	T	T	L	R	T
Maximum Queue (ft)	124	127	225	557	202	741	440	20
Average Queue (ft)	75	66	150	403	68	468	194	2
95th Queue (ft)	148	138	290	674	169	715	363	24
Link Distance (ft)	106	106		532	532	748	748	194
Upstream Blk Time (%)	10	6		25		2		
Queuing Penalty (veh)	22	13		59		0		
Storage Bay Dist (ft)			110					
Storage Blk Time (%)			18	71				
Queuing Penalty (veh)			24	135				

Intersection: 102: I-75 NB OFF RAMP/I-75 NB ON RAMP & MARY GRUBBS HWY (KY-14)

Movement	EB	EB	EB	WB	WB	B3	B3	NB	NB
Directions Served	L	T	T	T	TR	T	T	L	R
Maximum Queue (ft)	252	249	220	288	292	501	514	256	220
Average Queue (ft)	104	108	112	205	200	103	94	86	108
95th Queue (ft)	219	224	228	320	318	417	408	217	185
Link Distance (ft)		532	532	198	198	1003	1003	576	576
Upstream Blk Time (%)				31	16	0	0		
Queuing Penalty (veh)				0	0	0	0		
Storage Bay Dist (ft)	110								
Storage Blk Time (%)	12	6							
Queuing Penalty (veh)	40	10							

# Queuing and Blocking Report

08/01/2022

## Intersection: 200: BEAVER RD & CHURCH DRIVE (EX)

Movement	EB	NW	SW
Directions Served	LR	LR	LR
Maximum Queue (ft)	9	12	28
Average Queue (ft)	0	0	6
95th Queue (ft)	6	7	25
Link Distance (ft)	634	173	178
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

## Intersection: 201: BEAVER RD & SCHOOL DRIVE (PROP)

Movement	EB	NW	SW
Directions Served			
Maximum Queue (ft)			
Average Queue (ft)			
95th Queue (ft)			
Link Distance (ft)			
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

## Zone Summary

Zone wide Queuing Penalty: 485

Intersection: 100: WALTON VERONA RD/BEAVER RD & STEPHENSON MILL RD/MARY GRUBBS H

Phase	1	7	8	9
Movement(s) Served	NBTL	WBTL	SBTL	EBTL
Maximum Green (s)	54.0	81.0	35.0	13.5
Minimum Green (s)	6.0	6.0	6.0	6.0
Recall	None	None	None	None
Avg. Green (s)	51.6	74.7	42.8	17.4
g/C Ratio	-0.01	NA	NA	-0.01
Cycles Skipped (%)	13	0	0	6
Cycles @ Minimum (%)	0	0	0	0
Cycles Maxed Out (%)	13	7	0	6
Cycles with Peds (%)	0	0	0	0

**Controller Summary**

Average Cycle Length (s): NA  
 Number of Complete Cycles : 0

Intersection: 101: I-75 SB ON RAMP/I-75 SB OFF RAMP & MARY GRUBBS HWY (KY-14)

Phase	1	2	6	8
Movement(s) Served	WBL	EBT	WBTL	SBL
Maximum Green (s)	13.5	113.5	133.5	70.0
Minimum Green (s)	6.0	6.0	30.0	8.0
Recall	None	C-Max	C-Max	None
Avg. Green (s)	15.4	121.1	136.6	66.6
g/C Ratio	-0.01	NA	NA	NA
Cycles Skipped (%)	21	0	0	0
Cycles @ Minimum (%)	0	0	0	0
Cycles Maxed Out (%)	43	100	100	69
Cycles with Peds (%)	0	0	0	0

**Controller Summary**

Average Cycle Length (s): NA  
 Number of Complete Cycles : 0

Actuated Signals, Observed Splits

08/01/2022

Intersection: 102: I-75 NB OFF RAMP/I-75 NB ON RAMP & MARY GRUBBS HWY (KY-14)

Phase	1	3	4	8
Movement(s) Served	NBL	EBL	WBT	EBTL
Maximum Green (s)	23.0	23.5	43.3	73.3
Minimum Green (s)	8.0	8.0	30.0	30.0
Recall	None	C-Max	None	C-Max
Avg. Green (s)	20.1	27.6	43.3	78.2
g/C Ratio	NA	NA	NA	NA
Cycles Skipped (%)	0	0	0	0
Cycles @ Minimum (%)	0	0	0	0
Cycles Maxed Out (%)	52	100	100	100
Cycles with Peds (%)	0	0	0	0

**Controller Summary**

Average Cycle Length (s): NA  
 Number of Complete Cycles : 0

100: WALTON VERONA RD/BEAVER RD & STEPHENSON MILL RD/MARY GRUBBS HWY (KY-14)

Approach	EB	WB	NB	SB	All
Denied Del/Veh (s)	0.2	0.5	0.4	0.0	0.3
Total Del/Veh (s)	104.5	34.1	97.4	81.2	64.3

101: I-75 SB ON RAMP/I-75 SB OFF RAMP & MARY GRUBBS HWY (KY-14) Performance by approach

Approach	EB	WB	SB	All
Denied Del/Veh (s)	0.0	1.6	0.0	0.5
Total Del/Veh (s)	12.0	120.6	73.6	70.0

102: I-75 NB OFF RAMP/I-75 NB ON RAMP & MARY GRUBBS HWY (KY-14) Performance by approach

Approach	EB	WB	NB	All
Denied Del/Veh (s)	0.0	0.0	0.0	0.0
Total Del/Veh (s)	15.1	33.6	53.6	28.1

200: BEAVER RD & CHURCH DRIVE (EX) Performance by approach

Approach	EB	NW	SW	All
Denied Del/Veh (s)	0.2	0.0	0.1	0.1
Total Del/Veh (s)	0.7	0.2	4.4	0.6

201: BEAVER RD & SCHOOL DRIVE (PROP) Performance by approach

Approach	EB	WB	All
Denied Del/Veh (s)	0.0	0.0	0.0
Total Del/Veh (s)	0.0	0.2	0.1

Total Zone Performance

Denied Del/Veh (s)	2.2
Total Del/Veh (s)	2302.8

# SimTraffic Simulation Summary

08/01/2022

## Summary of All Intervals

Run Number	1	2	3	4	5	6	7
Start Time	7:05	7:05	7:05	7:05	7:05	7:05	7:05
End Time	8:15	8:15	8:15	8:15	8:15	8:15	8:15
Total Time (min)	70	70	70	70	70	70	70
Time Recorded (min)	60	60	60	60	60	60	60
# of Intervals	5	5	5	5	5	5	5
# of Recorded Intervals	4	4	4	4	4	4	4
Vehs Entered	4172	4295	4218	4147	4153	4154	4273
Vehs Exited	4189	4276	4227	4104	4107	4108	4201
Starting Vehs	141	169	139	147	115	93	148
Ending Vehs	124	188	130	190	161	139	220
Travel Distance (mi)	2151	2225	2185	2156	2148	2132	2188
Travel Time (hr)	142.6	155.7	143.6	139.1	146.5	120.9	185.4
Total Delay (hr)	83.2	94.5	83.6	79.9	87.5	62.0	124.9
Total Stops	3668	3685	3794	3602	3558	3442	4053
Fuel Used (gal)	97.4	102.7	99.0	97.1	97.9	91.4	108.5

## Summary of All Intervals

Run Number	8	9	10	Avg
Start Time	7:05	7:05	7:05	7:05
End Time	8:15	8:15	8:15	8:15
Total Time (min)	70	70	70	70
Time Recorded (min)	60	60	60	60
# of Intervals	5	5	5	5
# of Recorded Intervals	4	4	4	4
Vehs Entered	4181	4214	4165	4193
Vehs Exited	4196	4175	4122	4169
Starting Vehs	153	121	93	124
Ending Vehs	138	160	136	152
Travel Distance (mi)	2176	2175	2138	2167
Travel Time (hr)	134.7	129.1	119.2	141.7
Total Delay (hr)	74.7	69.1	60.4	82.0
Total Stops	3517	3571	3430	3630
Fuel Used (gal)	96.9	95.2	91.3	97.7

## Interval #0 Information Seeding

Start Time 7:05  
 End Time 7:15  
 Total Time (min) 10  
 Volumes adjusted by Growth Factors, Anti PHF.  
 No data recorded this interval.

Interval #1 Information Recording

Start Time 7:15  
 End Time 7:30  
 Total Time (min) 15  
 Volumes adjusted by Growth Factors, Anti PHF.

	1	2	3	4	5	6	7
<b>Run Number</b>							
Vehs Entered	1013	1094	1077	1003	1018	1006	1067
Vehs Exited	1034	1104	1072	1024	996	967	1058
Starting Vehs	141	169	139	147	115	93	148
Ending Vehs	120	159	144	126	137	132	157
Travel Distance (mi)	527	566	549	529	519	509	546
Travel Time (hr)	31.9	43.0	31.2	34.3	32.6	27.0	35.7
Total Delay (hr)	17.4	27.4	16.1	19.7	18.3	12.8	20.6
Total Stops	918	994	909	883	789	814	948
Fuel Used (gal)	23.1	27.2	23.8	24.1	23.0	21.3	24.7

Interval #1 Information Recording

Start Time 7:15  
 End Time 7:30  
 Total Time (min) 15  
 Volumes adjusted by Growth Factors, Anti PHF.

	8	9	10	Avg
<b>Run Number</b>				
Vehs Entered	1073	1002	1025	1037
Vehs Exited	1094	1025	981	1034
Starting Vehs	153	121	93	124
Ending Vehs	132	98	137	128
Travel Distance (mi)	571	523	520	536
Travel Time (hr)	36.0	27.8	28.6	32.8
Total Delay (hr)	20.3	13.4	14.4	18.0
Total Stops	899	844	863	886
Fuel Used (gal)	25.5	22.1	22.2	23.7

# SimTraffic Simulation Summary

08/01/2022

## Interval #2 Information

**Start Time** 7:30  
**End Time** 7:45  
**Total Time (min)** 15  
 Volumes adjusted by PHF, Growth Factors.

Run Number	1	2	3	4	5	6	7
Vehs Entered	1111	1031	1020	1025	1098	1039	1053
Vehs Exited	1074	1059	1025	1028	1063	1061	1032
Starting Vehs	120	159	144	126	137	132	157
Ending Vehs	157	131	139	123	172	110	178
Travel Distance (mi)	568	553	539	536	560	539	547
Travel Time (hr)	36.9	37.1	37.1	31.0	36.7	30.3	35.6
Total Delay (hr)	21.3	21.8	22.4	16.2	23.3	15.3	20.5
Total Stops	1010	874	947	896	920	898	888
Fuel Used (gal)	25.6	25.0	24.6	23.3	25.5	23.3	24.5

## Interval #2 Information

**Start Time** 7:30  
**End Time** 7:45  
**Total Time (min)** 15  
 Volumes adjusted by PHF, Growth Factors.

Run Number	8	9	10	Avg
Vehs Entered	1015	1039	979	1042
Vehs Exited	1036	995	992	1037
Starting Vehs	132	98	137	128
Ending Vehs	111	142	124	139
Travel Distance (mi)	529	533	511	542
Travel Time (hr)	31.1	29.9	27.2	33.5
Total Delay (hr)	16.5	15.2	13.1	18.6
Total Stops	818	819	784	884
Fuel Used (gal)	23.2	22.6	21.7	23.9

Interval #3 Information

Start Time 7:45  
 End Time 8:00  
 Total Time (min) 15  
 Volumes adjusted by Growth Factors, Anti PHF.

	1	2	3	4	5	6	7
<b>Run Number</b>				1025	1025	1012	1062
Vehs Entered	1002	1043	1039	1017	1042	1004	1024
Vehs Exited	1034	1052	1011	123	172	110	178
Starting Vehs	157	131	139	131	155	118	216
Ending Vehs	125	122	167	131	155	118	216
Travel Distance (mi)	523	545	523	536	550	526	531
Travel Time (hr)	37.3	34.2	34.8	32.9	40.1	29.3	57.5
Total Delay (hr)	22.9	19.2	20.5	18.2	25.1	14.8	42.8
Total Stops	841	869	902	900	894	828	1103
Fuel Used (gal)	24.6	24.4	23.9	23.8	25.8	22.4	29.2

Interval #3 Information

Start Time 7:45  
 End Time 8:00  
 Total Time (min) 15  
 Volumes adjusted by Growth Factors, Anti PHF.

	8	9	10	Avg
<b>Run Number</b>				1038
Vehs Entered	1062	1040	1065	1029
Vehs Exited	1008	1040	1063	139
Starting Vehs	111	142	124	141
Ending Vehs	165	142	126	141
Travel Distance (mi)	535	541	548	536
Travel Time (hr)	30.3	30.6	31.1	35.8
Total Delay (hr)	15.6	15.7	16.0	21.1
Total Stops	884	877	876	897
Fuel Used (gal)	23.5	23.3	23.5	24.4

# SimTraffic Simulation Summary

08/01/2022

## Interval #4 Information

**Start Time** 8:00  
**End Time** 8:15  
**Total Time (min)** 15  
 Volumes adjusted by Growth Factors, Anti PHF.

Run Number	1	2	3	4	5	6	7
Vehs Entered	1046	1127	1082	1094	1012	1097	1091
Vehs Exited	1047	1061	1119	1035	1006	1076	1087
Starting Vehs	125	122	167	131	155	118	216
Ending Vehs	124	188	130	190	161	139	220
Travel Distance (mi)	532	561	575	555	519	558	563
Travel Time (hr)	36.4	41.5	40.5	41.0	35.1	34.4	56.6
Total Delay (hr)	21.6	26.1	24.7	25.9	20.7	19.0	41.0
Total Stops	899	948	1036	923	955	902	1114
Fuel Used (gal)	24.1	26.1	26.7	25.9	23.6	24.3	30.1

## Interval #4 Information

**Start Time** 8:00  
**End Time** 8:15  
**Total Time (min)** 15  
 Volumes adjusted by Growth Factors, Anti PHF.

Run Number	8	9	10	Avg
Vehs Entered	1031	1133	1096	1080
Vehs Exited	1058	1115	1086	1065
Starting Vehs	165	142	126	141
Ending Vehs	138	160	136	152
Travel Distance (mi)	541	579	559	554
Travel Time (hr)	37.3	40.9	32.3	39.6
Total Delay (hr)	22.3	24.8	16.9	24.3
Total Stops	916	1031	907	984
Fuel Used (gal)	24.8	27.2	23.9	25.7

100: WALTON VERONA RD/BEAVER RD & STEPHENSON MILL RD/MARY GRUBBS HWY (KY-14)

Movement	EBL	EBT	WBL	WBT	WBR	NBT	NBR	SBL	SBT	SBR	All
Denied Del/Veh (s)	0.1	0.2	0.5	1.5	0.5	3.2	0.3	0.0	0.0	0.0	0.4
Total Del/Veh (s)	97.7	101.7	37.0	34.7	50.2	114.6	133.1	84.8	81.2	65.1	83.8

101: I-75 SB ON RAMP/I-75 SB OFF RAMP & MARY GRUBBS HWY (KY-14) Performance by mover

Movement	EBT	EBR	WBL	WBT	SBL	SBR	All
Denied Del/Veh (s)	0.1	0.1	0.3	0.6	0.0	0.0	0.2
Total Del/Veh (s)	12.4	7.3	108.9	190.9	73.1	66.5	73.6

102: I-75 NB OFF RAMP/I-75 NB ON RAMP & MARY GRUBBS HWY (KY-14) Performance by mover

Movement	EBL	EBT	WBT	WBR	NBL	NBR	All
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Del/Veh (s)	30.1	12.8	53.5	24.5	141.9	42.4	31.0

200: BEAVER RD & CHURCH DRIVE (EX) Performance by movement

Movement	EBL	EBR	NWL	NWR	SWL	SWR	All
Denied Del/Veh (s)	0.2	0.2	0.0	0.0	0.1	0.1	0.1
Total Del/Veh (s)	1.4	0.8	0.4	0.1	6.4	3.5	1.2

201: BEAVER RD & SCHOOL DRIVE (PROP) Performance by movement

Movement	EBT	WBT	All
Denied Del/Veh (s)	0.0	0.0	0.0
Total Del/Veh (s)	0.1	0.2	0.1

Total Zone Performance

Denied Del/Veh (s)	1.0
Total Del/Veh (s)	2327.4

Queuing and Blocking Report

08/01/2022

Intersection: 100: WALTON VERONA RD/BEAVER RD & STEPHENSON MILL RD/MARY GRUBBS H

Movement	EB	WB	WB	NB	NB	SB	SB
Directions Served	LTR	LT	R	LT	R	LTR	T
Maximum Queue (ft)	241	124	122	169	1050	309	127
Average Queue (ft)	108	107	97	14	545	180	10
95th Queue (ft)	207	132	138	89	1042	300	69
Link Distance (ft)	1681	106	106		1545	216	795
Upstream Blk Time (%)		56	42		0	12	
Queuing Penalty (veh)		122	91		0	0	
Storage Bay Dist (ft)				110			
Storage Blk Time (%)					62		
Queuing Penalty (veh)					6		

Intersection: 101: I-75 SB ON RAMP/I-75 SB OFF RAMP & MARY GRUBBS HWY (KY-14)

Movement	EB	EB	WB	WB	WB	SB	SB
Directions Served	T	TR	L	T	T	L	R
Maximum Queue (ft)	132	120	225	558	359	674	464
Average Queue (ft)	73	60	96	377	134	370	202
95th Queue (ft)	150	131	244	678	305	580	393
Link Distance (ft)	106	106		532	532	748	748
Upstream Blk Time (%)	13	7		28		0	
Queuing Penalty (veh)	33	18		50		0	
Storage Bay Dist (ft)			110				
Storage Blk Time (%)			5	72			
Queuing Penalty (veh)			6	70			

Intersection: 102: I-75 NB OFF RAMP/I-75 NB ON RAMP & MARY GRUBBS HWY (KY-14)

Movement	EB	EB	EB	WB	WB	SB	SB	NB	NB
Directions Served	L	T	T	T	TR	T	T	L	R
Maximum Queue (ft)	249	274	223	290	300	346	455	322	246
Average Queue (ft)	127	111	118	150	236	80	138	101	128
95th Queue (ft)	237	232	233	287	337	455	523	284	213
Link Distance (ft)		532	532	198	198	1003	1003	576	576
Upstream Blk Time (%)				21	29	3	4	0	
Queuing Penalty (veh)				0	0	0	0	0	
Storage Bay Dist (ft)	110								
Storage Blk Time (%)	18	7							
Queuing Penalty (veh)	56	13							

Intersection: 200: BEAVER RD & CHURCH DRIVE (EX)

Movement	EB	NW	SW
Directions Served	LR	LR	LR
Maximum Queue (ft)	27	21	53
Average Queue (ft)	2	1	29
95th Queue (ft)	13	11	47
Link Distance (ft)	634	173	178
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 201: BEAVER RD & SCHOOL DRIVE (PROP)

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Zone Summary

Zone wide Queuing Penalty: 466

Intersection: 100: WALTON VERONA RD/BEAVER RD & STEPHENSON MILL RD/MARY GRUBBS H

Phase	1	7	8	9
Movement(s) Served	NBTL	WBTL	SBTL	EBTL
Maximum Green (s)	54.0	81.0	35.0	13.5
Minimum Green (s)	6.0	6.0	6.0	6.0
Recall	None	None	None	None
Avg. Green (s)	64.3	61.5	37.9	18.4
g/C Ratio	-0.01	NA	NA	NA
Cycles Skipped (%)	11	0	0	0
Cycles @ Minimum (%)	0	0	0	0
Cycles Maxed Out (%)	33	13	0	7
Cycles with Peds (%)	0	0	0	0

**Controller Summary**

Average Cycle Length (s): NA  
 Number of Complete Cycles : 0

Intersection: 101: I-75 SB ON RAMP/I-75 SB OFF RAMP & MARY GRUBBS HWY (KY-14)

Phase	1	2	6	8
Movement(s) Served	WBL	EBT	WBTL	SBL
Maximum Green (s)	13.5	113.5	133.5	70.0
Minimum Green (s)	6.0	6.0	30.0	8.0
Recall	None	C-Max	C-Max	None
Avg. Green (s)	12.2	131.4	149.2	64.0
g/C Ratio	-0.01	NA	NA	NA
Cycles Skipped (%)	40	0	0	0
Cycles @ Minimum (%)	0	0	0	0
Cycles Maxed Out (%)	13	100	100	50
Cycles with Peds (%)	0	0	0	0

**Controller Summary**

Average Cycle Length (s): NA  
 Number of Complete Cycles : 0

Intersection: 102: I-75 NB OFF RAMP/I-75 NB ON RAMP & MARY GRUBBS HWY (KY-14)

Phase	1	3	4	8
Movement(s) Served	NBL	EBL	WBT	EBTL
Maximum Green (s)	23.0	23.5	43.3	73.3
Minimum Green (s)	8.0	8.0	30.0	30.0
Recall	None	C-Max	None	C-Max
Avg. Green (s)	20.8	26.6	43.3	77.8
g/C Ratio	NA	NA	NA	NA
Cycles Skipped (%)	0	0	0	0
Cycles @ Minimum (%)	0	0	0	0
Cycles Maxed Out (%)	63	100	100	100
Cycles with Peds (%)	0	0	0	0

**Controller Summary**

Average Cycle Length (s): NA  
 Number of Complete Cycles : 0

100: WALTON VERONA RD/BEAVER RD & STEPHENSON MILL RD/MARY GRUBBS HWY (KY-14) I

Approach	EB	WB	NB	SB	All
Denied Del/Veh (s)	0.2	0.6	0.4	0.0	0.4
Total Del/Veh (s)	101.3	42.1	132.6	83.3	83.8

101: I-75 SB ON RAMP/I-75 SB OFF RAMP & MARY GRUBBS HWY (KY-14) Performance by approach

Approach	EB	WB	SB	All
Denied Del/Veh (s)	0.1	0.5	0.0	0.2
Total Del/Veh (s)	11.7	168.0	71.0	73.6

102: I-75 NB OFF RAMP/I-75 NB ON RAMP & MARY GRUBBS HWY (KY-14) Performance by approach

Approach	EB	WB	NB	All
Denied Del/Veh (s)	0.0	0.0	0.0	0.0
Total Del/Veh (s)	16.7	34.3	65.8	31.0

200: BEAVER RD & CHURCH DRIVE (EX) Performance by approach

Approach	EB	NW	SW	All
Denied Del/Veh (s)	0.2	0.0	0.1	0.1
Total Del/Veh (s)	0.9	0.3	4.2	1.2

201: BEAVER RD & SCHOOL DRIVE (PROP) Performance by approach

Approach	EB	WB	All
Denied Del/Veh (s)	0.0	0.0	0.0
Total Del/Veh (s)	0.1	0.2	0.1

Total Zone Performance

Denied Del/Veh (s)	1.0
Total Del/Veh (s)	2327.4

Summary of All Intervals

	1	2	3	4	5	6	7
<b>Run Number</b>							
Start Time	7:05	7:05	7:05	7:05	7:05	7:05	7:05
End Time	8:15	8:15	8:15	8:15	8:15	8:15	8:15
Total Time (min)	70	70	70	70	70	70	70
Time Recorded (min)	60	60	60	60	60	60	60
# of Intervals	5	5	5	5	5	5	5
# of Recorded Intervals	4	4	4	4	4	4	4
Vehs Entered	4570	4516	4434	4344	4518	4473	4537
Vehs Exited	4441	4428	4329	4221	4459	4381	4532
Starting Vehs	133	126	143	120	166	125	151
Ending Vehs	262	214	248	243	225	217	156
Travel Distance (mi)	2330	2325	2266	2213	2316	2275	2346
Travel Time (hr)	189.6	222.4	163.7	210.6	183.5	179.1	159.3
Total Delay (hr)	125.6	158.2	101.2	149.7	119.7	116.4	94.5
Total Stops	4242	4529	3851	3970	4239	3909	4050
Fuel Used (gal)	114.0	121.3	105.1	114.1	111.8	109.7	107.5

Summary of All Intervals

	8	9	10	Avg
<b>Run Number</b>				
Start Time	7:05	7:05	7:05	7:05
End Time	8:15	8:15	8:15	8:15
Total Time (min)	70	70	70	70
Time Recorded (min)	60	60	60	60
# of Intervals	5	5	5	5
# of Recorded Intervals	4	4	4	4
Vehs Entered	4431	4525	4405	4475
Vehs Exited	4402	4517	4371	4405
Starting Vehs	146	159	150	129
Ending Vehs	175	167	184	200
Travel Distance (mi)	2279	2331	2279	2296
Travel Time (hr)	153.3	180.5	205.8	184.8
Total Delay (hr)	90.5	115.8	143.0	121.5
Total Stops	4003	4166	4087	4105
Fuel Used (gal)	104.9	112.7	115.5	111.7

Interval #0 Information Seeding

Start Time 7:05  
 End Time 7:15  
 Total Time (min) 10  
 Volumes adjusted by Growth Factors, Anti PHF.  
 No data recorded this interval.

# SimTraffic Simulation Summary

08/01/2022

## Interval #1 Information Recording

Start Time 7:15  
 End Time 7:30  
 Total Time (min) 15  
 Volumes adjusted by Growth Factors, Anti PHF.

Run Number	1	2	3	4	5	6	7
Vehs Entered	1115	1125	1105	1122	1105	1149	1163
Vehs Exited	1085	1078	1098	1086	1132	1134	1159
Starting Vehs	133	126	143	120	166	125	151
Ending Vehs	163	173	150	156	139	140	155
Travel Distance (mi)	564	568	574	566	579	586	596
Travel Time (hr)	34.2	43.6	35.1	34.5	33.4	33.6	37.1
Total Delay (hr)	18.6	27.8	19.1	18.8	17.4	17.4	20.6
Total Stops	943	1055	989	937	921	938	974
Fuel Used (gal)	24.8	27.4	25.3	24.9	25.2	25.1	26.6

## Interval #1 Information Recording

Start Time 7:15  
 End Time 7:30  
 Total Time (min) 15  
 Volumes adjusted by Growth Factors, Anti PHF.

Run Number	8	9	10	Avg
Vehs Entered	1108	1076	1114	1115
Vehs Exited	1110	1021	1091	1099
Starting Vehs	146	159	150	129
Ending Vehs	144	214	173	160
Travel Distance (mi)	581	533	560	571
Travel Time (hr)	35.1	48.8	40.6	37.6
Total Delay (hr)	19.0	34.1	25.1	21.8
Total Stops	905	1044	972	965
Fuel Used (gal)	25.6	27.5	26.2	25.9

**Interval #2 Information**

Start Time 7:30  
 End Time 7:45  
 Total Time (min) 15  
 Volumes adjusted by PHF, Growth Factors.

	1	2	3	4	5	6	7
<b>Run Number</b>							
Vehs Entered	1166	1089	1086	1064	1160	1105	1100
Vehs Exited	1123	1043	1087	1006	1116	1078	1079
Starting Vehs	163	173	150	156	139	140	155
Ending Vehs	206	219	149	214	183	167	176
Travel Distance (mi)	595	550	559	536	585	567	554
Travel Time (hr)	41.3	56.3	33.3	42.4	37.6	36.1	37.1
Total Delay (hr)	24.8	41.1	17.9	27.7	21.4	20.5	21.7
Total Stops	1032	1073	927	966	985	913	959
Fuel Used (gal)	27.4	28.7	24.4	25.6	26.2	25.2	25.4

**Interval #2 Information**

Start Time 7:30  
 End Time 7:45  
 Total Time (min) 15  
 Volumes adjusted by PHF, Growth Factors.

	8	9	10	Avg
<b>Run Number</b>				
Vehs Entered	1083	1167	1085	1108
Vehs Exited	1088	1190	1098	1091
Starting Vehs	144	214	173	160
Ending Vehs	139	191	160	177
Travel Distance (mi)	558	627	576	571
Travel Time (hr)	32.3	49.3	39.1	40.5
Total Delay (hr)	16.9	32.0	23.2	24.7
Total Stops	916	1083	989	982
Fuel Used (gal)	24.3	30.6	26.5	26.4

# SimTraffic Simulation Summary

08/01/2022

## Interval #3 Information

Start Time 7:45  
 End Time 8:00  
 Total Time (min) 15

Volumes adjusted by Growth Factors, Anti PHF.

Run Number	1	2	3	4	5	6	7
Vehs Entered	1142	1140	1119	1089	1153	1098	1162
Vehs Exited	1098	1119	1081	1055	1082	1063	1127
Starting Vehs	206	219	149	214	183	167	176
Ending Vehs	250	240	187	248	254	202	211
Travel Distance (mi)	577	587	571	557	565	562	595
Travel Time (hr)	52.6	62.9	40.0	60.8	53.1	45.9	41.4
Total Delay (hr)	36.7	46.7	24.3	45.5	37.6	30.5	24.9
Total Stops	1153	1243	945	1081	1167	1062	1048
Fuel Used (gal)	29.9	32.3	26.1	30.7	29.3	27.5	27.2

## Interval #3 Information

Start Time 7:45  
 End Time 8:00  
 Total Time (min) 15

Volumes adjusted by Growth Factors, Anti PHF.

Run Number	8	9	10	Avg
Vehs Entered	1096	1086	1110	1121
Vehs Exited	1057	1127	1007	1082
Starting Vehs	139	191	160	177
Ending Vehs	178	150	263	211
Travel Distance (mi)	557	555	537	566
Travel Time (hr)	41.3	36.2	56.2	49.2
Total Delay (hr)	26.0	22.7	41.4	33.6
Total Stops	1077	949	1061	1078
Fuel Used (gal)	26.8	25.8	28.7	28.4

Interval #4 Information

Start Time 8:00  
 End Time 8:15  
 Total Time (min) 15  
 Volumes adjusted by Growth Factors, Anti PHF.

Run Number	1	2	3	4	5	6	7
Vehs Entered	1147	1162	1124	1069	1100	1121	1112
Vehs Exited	1135	1188	1063	1074	1129	1108	1167
Starting Vehs	250	240	187	248	254	202	211
Ending Vehs	262	214	248	243	225	217	156
Travel Distance (mi)	593	620	562	553	586	561	600
Travel Time (hr)	61.5	59.6	55.3	72.9	59.4	63.4	43.8
Total Delay (hr)	45.4	42.5	39.9	57.7	43.3	48.0	27.3
Total Stops	1114	1158	990	986	1166	996	1069
Fuel Used (gal)	31.9	32.8	29.3	32.9	31.1	31.9	28.3

Interval #4 Information

Start Time 8:00  
 End Time 8:15  
 Total Time (min) 15  
 Volumes adjusted by Growth Factors, Anti PHF.

Run Number	8	9	10	Avg
Vehs Entered	1144	1196	1096	1125
Vehs Exited	1147	1179	1175	1134
Starting Vehs	178	150	263	211
Ending Vehs	175	167	184	200
Travel Distance (mi)	583	616	605	588
Travel Time (hr)	44.7	44.1	69.9	57.5
Total Delay (hr)	28.6	27.1	53.3	41.3
Total Stops	1105	1090	1065	1075
Fuel Used (gal)	28.2	28.8	34.2	30.9

100: WALTON VERONA RD/BEAVER RD & STEPHENSON MILL RD/MARY GRUBBS HWY (KY-14) I

Movement	EBL	EBT	WBL	WBT	WBR	NBT	NBR	SBL	SBT	SBR	All
Denied Del/Veh (s)	0.2	0.2	0.5	0.6	0.7	4.3	2.5	0.0	0.0	0.0	1.1
Total Del/Veh (s)	104.0	105.4	35.4	34.7	42.3	109.3	148.3	80.2	95.3	73.6	82.7

101: I-75 SB ON RAMP/I-75 SB OFF RAMP & MARY GRUBBS HWY (KY-14) Performance by movement

Movement	EBT	EBR	WBL	WBT	SBL	SBR	All
Denied Del/Veh (s)	0.1	0.1	0.8	0.9	0.0	0.0	0.2
Total Del/Veh (s)	11.4	8.2	125.1	257.3	70.5	77.3	92.6

102: I-75 NB OFF RAMP/I-75 NB ON RAMP & MARY GRUBBS HWY (KY-14) Performance by movement

Movement	EBL	EBT	WBT	WBR	NBL	NBR	All
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Del/Veh (s)	29.3	12.5	68.3	39.4	186.3	40.7	39.5

200: BEAVER RD & CHURCH DRIVE (EX) Performance by movement

Movement	EBL	EBR	NWL	NWT	NWR	All
Denied Del/Veh (s)	0.2	0.3	0.0	0.0	0.0	0.1
Total Del/Veh (s)	3.4	1.5	0.9	0.9	0.4	1.3

201: BEAVER RD & SCHOOL DRIVE (PROP) Performance by movement

Movement	EBT	WBT	SBL	SBR	All
Denied Del/Veh (s)	0.0	0.0	0.1	0.2	0.0
Total Del/Veh (s)	0.1	0.6	6.4	4.5	1.4

Total Zone Performance

Denied Del/Veh (s)	2.1
Total Del/Veh (s)	2466.6

Intersection: 100: WALTON VERONA RD/BEAVER RD & STEPHENSON MILL RD/MARY GRUBBS H

Movement	EB	WB	WB	NB	NB	SB	SB
Directions Served	LTR	LT	R	LT	R	LTR	T
Maximum Queue (ft)	225	124	123	194	993	314	127
Average Queue (ft)	108	108	108	18	563	208	17
95th Queue (ft)	201	127	127	103	1123	329	86
Link Distance (ft)	1681	106	106		1545	216	795
Upstream Blk Time (%)		57	57		2	18	
Queuing Penalty (veh)		147	145		0	0	
Storage Bay Dist (ft)				110			
Storage Blk Time (%)					65		
Queuing Penalty (veh)					10		

Intersection: 101: I-75 SB ON RAMP/I-75 SB OFF RAMP & MARY GRUBBS HWY (KY-14)

Movement	EB	EB	WB	WB	WB	SB	SB
Directions Served	T	TR	L	T	T	L	R
Maximum Queue (ft)	132	124	225	556	500	642	466
Average Queue (ft)	62	57	108	415	317	377	260
95th Queue (ft)	139	132	268	696	572	587	426
Link Distance (ft)	106	106		532	532	748	748
Upstream Blk Time (%)	10	8		33	12	0	
Queuing Penalty (veh)	27	20		66	24	0	
Storage Bay Dist (ft)			110				
Storage Blk Time (%)			3	79			
Queuing Penalty (veh)			5	76			

Intersection: 102: I-75 NB OFF RAMP/I-75 NB ON RAMP & MARY GRUBBS HWY (KY-14)

Movement	EB	EB	EB	WB	WB	B3	B3	NB	NB
Directions Served	L	T	T	T	TR	T	T	L	R
Maximum Queue (ft)	237	254	232	286	310	940	968	394	239
Average Queue (ft)	119	109	114	170	268	419	539	145	124
95th Queue (ft)	222	229	232	311	332	1127	1158	385	205
Link Distance (ft)		532	532	198	198	1003	1003	576	576
Upstream Blk Time (%)				28	58	12	17	0	
Queuing Penalty (veh)				0	0	0	0	0	
Storage Bay Dist (ft)	110								
Storage Blk Time (%)	17	7							
Queuing Penalty (veh)	52	14							

# Queuing and Blocking Report

08/01/2022

## Intersection: 200: BEAVER RD & CHURCH DRIVE (EX)

Movement	EB	NW
Directions Served	LR	LR
Maximum Queue (ft)	92	59
Average Queue (ft)	19	11
95th Queue (ft)	59	37
Link Distance (ft)	634	173
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

## Intersection: 201: BEAVER RD & SCHOOL DRIVE (PROP)

Movement	SB
Directions Served	LR
Maximum Queue (ft)	73
Average Queue (ft)	37
95th Queue (ft)	60
Link Distance (ft)	199
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

## Zone Summary

Zone wide Queuing Penalty: 586

Intersection: 100: WALTON VERONA RD/BEAVER RD & STEPHENSON MILL RD/MARY GRUBBS F

Phase	1	7	8	9
Movement(s) Served	NBTL	WBTL	SBTL	EBTL
Maximum Green (s)	54.0	81.0	35.0	13.5
Minimum Green (s)	6.0	6.0	6.0	6.0
Recall	None	None	None	None
Avg. Green (s)	64.3	73.9	39.5	17.4
g/C Ratio	-0.01	NA	NA	NA
Cycles Skipped (%)	6	0	0	0
Cycles @ Minimum (%)	0	0	0	0
Cycles Maxed Out (%)	44	23	13	13
Cycles with Peds (%)	0	0	0	0

**Controller Summary**

Average Cycle Length (s): NA  
 Number of Complete Cycles : 0

Intersection: 101: I-75 SB ON RAMP/I-75 SB OFF RAMP & MARY GRUBBS HWY (KY-14)

Phase	1	2	6	8
Movement(s) Served	WBL	EBT	WBTL	SBL
Maximum Green (s)	13.5	113.5	133.5	70.0
Minimum Green (s)	6.0	6.0	30.0	8.0
Recall	None	C-Max	C-Max	None
Avg. Green (s)	12.6	132.3	145.7	66.5
g/C Ratio	-0.01	NA	NA	NA
Cycles Skipped (%)	57	0	0	0
Cycles @ Minimum (%)	0	0	0	0
Cycles Maxed Out (%)	7	100	100	57
Cycles with Peds (%)	0	0	0	0

**Controller Summary**

Average Cycle Length (s): NA  
 Number of Complete Cycles : 0

Intersection: 102: I-75 NB OFF RAMP/I-75 NB ON RAMP & MARY GRUBBS HWY (KY-14)

Phase	1	3	4	8
Movement(s) Served	NBL	EBL	WBT	EBTL
Maximum Green (s)	23.0	23.5	43.3	73.3
Minimum Green (s)	8.0	8.0	30.0	30.0
Recall	None	C-Max	None	C-Max
Avg. Green (s)	21.0	25.7	43.3	78.2
g/C Ratio	NA	NA	NA	NA
Cycles Skipped (%)	0	0	0	0
Cycles @ Minimum (%)	0	0	0	0
Cycles Maxed Out (%)	63	100	100	100
Cycles with Peds (%)	0	0	0	0

**Controller Summary**

Average Cycle Length (s): NA  
 Number of Complete Cycles : 0

100: WALTON VERONA RD/BEAVER RD & STEPHENSON MILL RD/MARY GRUBBS HWY (KY-14)

Approach	EB	WB	NB	SB	All
Denied Del/Veh (s)	0.2	0.6	2.6	0.0	1.1
Total Del/Veh (s)	105.2	38.7	146.9	80.3	82.7

101: I-75 SB ON RAMP/I-75 SB OFF RAMP & MARY GRUBBS HWY (KY-14) Performance by approach

Approach	EB	WB	SB	All
Denied Del/Veh (s)	0.1	0.9	0.0	0.2
Total Del/Veh (s)	10.9	228.3	72.9	92.6

102: I-75 NB OFF RAMP/I-75 NB ON RAMP & MARY GRUBBS HWY (KY-14) Performance by approach

Approach	EB	WB	NB	All
Denied Del/Veh (s)	0.0	0.0	0.0	0.0
Total Del/Veh (s)	16.0	50.4	79.5	39.5

200: BEAVER RD & CHURCH DRIVE (EX) Performance by approach

Approach	EB	NW	All
Denied Del/Veh (s)	0.2	0.0	0.1
Total Del/Veh (s)	2.3	0.8	1.3

201: BEAVER RD & SCHOOL DRIVE (PROP) Performance by approach

Approach	EB	WB	SB	All
Denied Del/Veh (s)	0.0	0.0	0.2	0.0
Total Del/Veh (s)	0.1	0.6	4.9	1.4

Total Zone Performance

Denied Del/Veh (s)	2.1
Total Del/Veh (s)	2466.6

# SimTraffic Simulation Summary

08/01/2022

## Summary of All Intervals

Run Number	1	2	3	4	5	6	7
Start Time	4:35	4:35	4:35	4:35	4:35	4:35	4:35
End Time	5:45	5:45	5:45	5:45	5:45	5:45	5:45
Total Time (min)	70	70	70	70	70	70	70
Time Recorded (min)	60	60	60	60	60	60	60
# of Intervals	5	5	5	5	5	5	5
# of Recorded Intervals	4	4	4	4	4	4	4
Vehs Entered	4171	4260	4348	4156	4215	4186	4323
Vehs Exited	4098	4182	4304	4171	4215	4107	4258
Starting Vehs	111	138	134	151	128	123	143
Ending Vehs	184	216	178	136	128	202	208
Travel Distance (mi)	2194	2245	2281	2195	2230	2206	2244
Travel Time (hr)	176.5	152.5	136.0	136.1	129.4	194.6	151.1
Total Delay (hr)	117.0	91.3	73.9	76.0	68.7	134.5	89.7
Total Stops	4488	3870	3778	3770	3665	4294	3943
Fuel Used (gal)	106.8	102.3	99.5	97.3	96.7	110.8	102.1

## Summary of All Intervals

Run Number	8	9	10	Avg
Start Time	4:35	4:35	4:35	4:35
End Time	5:45	5:45	5:45	5:45
Total Time (min)	70	70	70	70
Time Recorded (min)	60	60	60	60
# of Intervals	5	5	5	5
# of Recorded Intervals	4	4	4	4
Vehs Entered	4191	4318	4244	4242
Vehs Exited	4187	4228	4251	4202
Starting Vehs	120	124	135	127
Ending Vehs	124	214	128	165
Travel Distance (mi)	2224	2252	2231	2230
Travel Time (hr)	172.4	141.4	136.6	152.7
Total Delay (hr)	111.8	80.1	75.9	91.9
Total Stops	4288	3845	3711	3963
Fuel Used (gal)	107.1	99.7	98.2	102.0

## Interval #0 Information Seeding

Start Time 4:35  
 End Time 4:45  
 Total Time (min) 10  
 Volumes adjusted by Growth Factors, Anti PHF.  
 No data recorded this interval.

**Interval #1 Information Recording**

Start Time 4:45  
 End Time 5:00  
 Total Time (min) 15

Volumes adjusted by Growth Factors, Anti PHF.

	1	2	3	4	5	6	7
<b>Run Number</b>							
Vehs Entered	1068	1104	1051	1050	995	1010	1115
Vehs Exited	1041	1103	1061	1061	1006	1006	1129
Starting Vehs	111	138	134	151	128	123	143
Ending Vehs	138	139	124	140	117	127	129
Travel Distance (mi)	563	596	562	555	537	526	596
Travel Time (hr)	34.0	38.5	33.9	36.5	28.2	29.5	37.7
Total Delay (hr)	18.8	22.3	18.5	21.3	13.6	15.2	21.3
Total Stops	977	1017	914	952	815	826	954
Fuel Used (gal)	24.5	26.8	24.5	25.3	22.5	22.6	26.4

**Interval #1 Information Recording**

Start Time 4:45  
 End Time 5:00  
 Total Time (min) 15

Volumes adjusted by Growth Factors, Anti PHF.

	8	9	10	Avg
<b>Run Number</b>				
Vehs Entered	1044	1075	1116	1064
Vehs Exited	1000	1079	1116	1060
Starting Vehs	120	124	135	127
Ending Vehs	164	120	135	127
Travel Distance (mi)	551	571	588	565
Travel Time (hr)	39.7	35.6	34.2	34.8
Total Delay (hr)	24.8	20.1	18.3	19.4
Total Stops	991	955	1002	938
Fuel Used (gal)	25.4	25.4	25.5	24.9

SimTraffic Simulation Summary

08/01/2022

Interval #2 Information

Start Time	5:00
End Time	5:15
Total Time (min)	15

Volumes adjusted by PHF, Growth Factors.

Run Number	1	2	3	4	5	6	7
Vehs Entered	1045	1035	1085	1019	1098	1069	1082
Vehs Exited	1020	1049	1085	1021	1074	1003	1077
Starting Vehs	138	139	124	140	117	127	129
Ending Vehs	163	125	124	138	141	193	134
Travel Distance (mi)	539	548	579	537	572	544	563
Travel Time (hr)	41.9	34.8	32.4	32.4	35.9	41.7	36.6
Total Delay (hr)	27.2	19.8	16.6	17.7	20.3	26.9	21.2
Total Stops	1033	893	962	915	975	1012	988
Fuel Used (gal)	26.1	24.6	24.9	23.5	25.4	25.7	25.6

Interval #2 Information

Start Time	5:00
End Time	5:15
Total Time (min)	15

Volumes adjusted by PHF, Growth Factors.

Run Number	8	9	10	Avg
Vehs Entered	1045	1069	1030	1056
Vehs Exited	988	1043	1038	1040
Starting Vehs	164	120	135	127
Ending Vehs	221	146	127	144
Travel Distance (mi)	530	558	540	551
Travel Time (hr)	52.9	30.9	34.4	37.4
Total Delay (hr)	38.6	15.7	19.8	22.4
Total Stops	1147	869	871	964
Fuel Used (gal)	28.0	23.7	24.1	25.2

**Interval #3 Information**

Start Time 5:15  
 End Time 5:30  
 Total Time (min) 15  
 Volumes adjusted by Growth Factors, Anti PHF.

	1	2	3	4	5	6	7
<b>Run Number</b>	1007	1022	1079	1014	1064	1057	1073
Vehs Entered	972	1026	1074	1020	1085	1034	1080
Vehs Exited	163	125	124	138	141	193	134
Starting Vehs	198	121	129	132	120	216	127
Ending Vehs	524	547	563	538	564	571	562
Travel Distance (mi)	48.3	30.6	31.6	33.7	33.7	59.0	34.9
Travel Time (hr)	34.1	15.8	16.3	19.0	18.3	43.5	19.4
Total Delay (hr)	1172	844	929	949	945	1294	966
Total Stops	26.7	23.3	24.3	23.9	24.9	30.5	24.8
Fuel Used (gal)							

**Interval #3 Information**

Start Time 5:15  
 End Time 5:30  
 Total Time (min) 15  
 Volumes adjusted by Growth Factors, Anti PHF.

	8	9	10	Avg
<b>Run Number</b>	1018	1031	1049	1042
Vehs Entered	1089	1074	1008	1045
Vehs Exited	221	146	127	144
Starting Vehs	150	103	168	139
Ending Vehs	568	547	535	552
Travel Distance (mi)	44.8	30.3	35.8	38.3
Travel Time (hr)	29.3	15.3	21.1	23.2
Total Delay (hr)	1178	850	916	1004
Total Stops	28.0	23.3	24.2	25.4
Fuel Used (gal)				

# SimTraffic Simulation Summary

08/01/2022

## Interval #4 Information

Start Time 5:30  
 End Time 5:45  
 Total Time (min) 15

Volumes adjusted by Growth Factors, Anti PHF.

Run Number	1	2	3	4	5	6	7
Vehs Entered	1051	1099	1133	1073	1058	1050	1053
Vehs Exited	1065	1004	1084	1069	1050	1064	972
Starting Vehs	198	121	129	132	120	216	127
Ending Vehs	184	216	178	136	128	202	208
Travel Distance (mi)	568	555	576	565	558	565	524
Travel Time (hr)	52.3	48.6	38.1	33.5	31.7	64.4	41.9
Total Delay (hr)	37.0	33.5	22.5	18.0	16.5	49.0	27.8
Total Stops	1306	1116	973	954	930	1162	1035
Fuel Used (gal)	29.4	27.6	25.9	24.5	23.9	32.0	25.3

## Interval #4 Information

Start Time 5:30  
 End Time 5:45  
 Total Time (min) 15

Volumes adjusted by Growth Factors, Anti PHF.

Run Number	8	9	10	Avg
Vehs Entered	1084	1143	1049	1077
Vehs Exited	1110	1032	1089	1053
Starting Vehs	150	103	168	139
Ending Vehs	124	214	128	165
Travel Distance (mi)	575	575	567	563
Travel Time (hr)	34.9	44.5	32.2	42.2
Total Delay (hr)	19.1	29.1	16.7	26.9
Total Stops	972	1171	922	1055
Fuel Used (gal)	25.7	27.3	24.4	26.6

100: WALTON VERONA RD/BEAVER RD & STEPHENSON MILL RD/MARY GRUBBS HWY (KY-14)

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBT	NBR	SBL	SBT	SBR	All
Denied Del/Veh (s)	0.1	0.2	0.1	0.4	0.0	0.6	3.4	0.3	0.0	0.0	0.0	0.3
Total Del/Veh (s)	97.2	96.7	59.1	26.0	26.1	44.5	79.3	95.7	79.8	81.2	71.7	61.5

101: I-75 SB ON RAMP/I-75 SB OFF RAMP & MARY GRUBBS HWY (KY-14) Performance by movement

Movement	EBT	EBR	WBL	WBT	SBL	SBR	All
Denied Del/Veh (s)	0.0	0.1	0.1	2.7	0.0	0.0	0.5
Total Del/Veh (s)	11.7	7.5	102.7	148.0	95.2	59.0	77.0

102: I-75 NB OFF RAMP/I-75 NB ON RAMP & MARY GRUBBS HWY (KY-14) Performance by movement

Movement	EBL	EBT	WBT	WBR	NBL	NBR	All
Denied Del/Veh (s)	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Total Del/Veh (s)	26.0	12.4	62.4	21.6	103.9	39.2	30.9

200: BEAVER RD & CHURCH DRIVE (EX) Performance by movement

Movement	EBL	EBR	NWL	NWR	SWL	SWR	All
Denied Del/Veh (s)	0.2	0.2	0.0	0.0	0.1	0.1	0.1
Total Del/Veh (s)	1.5	0.7	0.2	0.1	5.8	3.0	0.6

201: BEAVER RD & SCHOOL DRIVE (PROP) Performance by movement

Movement	EBT	WBT	All
Denied Del/Veh (s)	0.0	0.0	0.0
Total Del/Veh (s)	0.0	0.2	0.1

Total Zone Performance

Denied Del/Veh (s)	2.1
Total Del/Veh (s)	2378.4

Queuing and Blocking Report

08/01/2022

Intersection: 100: WALTON VERONA RD/BEAVER RD & STEPHENSON MILL RD/MARY GRUBBS H

Movement	EB	WB	WB	NB	NB	SB	SB
Directions Served	LTR	LT	R	LT	R	LTR	T
Maximum Queue (ft)	208	119	115	168	647	308	136
Average Queue (ft)	78	106	81	9	316	184	9
95th Queue (ft)	166	132	139	65	573	298	66
Link Distance (ft)	1681	106	106		1545	216	795
Upstream Blk Time (%)		49	25			13	
Queuing Penalty (veh)		114	58			0	
Storage Bay Dist (ft)				110			
Storage Blk Time (%)					55		
Queuing Penalty (veh)					4		

Intersection: 101: I-75 SB ON RAMP/I-75 SB OFF RAMP & MARY GRUBBS HWY (KY-14)

Movement	EB	EB	WB	WB	WB	SB	SB	B20	B20	B22	B22
Directions Served	T	TR	L	T	T	L	R	T	T	T	T
Maximum Queue (ft)	131	128	225	558	186	793	503	95	32	23	18
Average Queue (ft)	74	56	148	431	71	541	210	9	2	1	1
95th Queue (ft)	151	129	294	690	173	824	415	72	32	28	19
Link Distance (ft)	106	106		532	532	748	748	194	194	650	650
Upstream Blk Time (%)	11	6		32		5	0	0	0		
Queuing Penalty (veh)	24	12		76		0	0	0	0		
Storage Bay Dist (ft)			110								
Storage Blk Time (%)			19	70							
Queuing Penalty (veh)			26	137							

Intersection: 102: I-75 NB OFF RAMP/I-75 NB ON RAMP & MARY GRUBBS HWY (KY-14)

Movement	EB	EB	EB	WB	WB	B3	B3	NB	NB
Directions Served	L	T	T	T	TR	T	T	L	R
Maximum Queue (ft)	251	256	221	303	297	780	775	279	217
Average Queue (ft)	106	110	119	217	206	260	242	96	108
95th Queue (ft)	222	230	236	330	329	872	862	239	184
Link Distance (ft)		532	532	198	198	1003	1003	576	576
Upstream Blk Time (%)				41	21	7	8		
Queuing Penalty (veh)				0	0	0	0		
Storage Bay Dist (ft)	110								
Storage Blk Time (%)	13	6							
Queuing Penalty (veh)	43	10							

Intersection: 200: BEAVER RD & CHURCH DRIVE (EX)

Movement	EB	NW	SW
Directions Served	LR	LR	LR
Maximum Queue (ft)	2	4	31
Average Queue (ft)	0	0	7
95th Queue (ft)	3	2	28
Link Distance (ft)	634	173	178
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 201: BEAVER RD & SCHOOL DRIVE (PROP)

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Zone Summary

Zone wide Queuing Penalty: 506

Intersection: 100: WALTON VERONA RD/BEAVER RD & STEPHENSON MILL RD/MARY GRUBBS H

Phase	1	7	8	9
Movement(s) Served	NBTL	WBTL	SBTL	EBTL
Maximum Green (s)	54.0	81.0	35.0	13.5
Minimum Green (s)	6.0	6.0	6.0	6.0
Recall	None	None	None	None
Avg. Green (s)	49.0	79.1	41.9	19.0
g/C Ratio	-0.01	NA	NA	-0.01
Cycles Skipped (%)	17	0	0	7
Cycles @ Minimum (%)	0	0	0	0
Cycles Maxed Out (%)	6	7	0	7
Cycles with Peds (%)	0	0	0	0

**Controller Summary**

Average Cycle Length (s): NA  
 Number of Complete Cycles : 0

Intersection: 101: I-75 SB ON RAMP/I-75 SB OFF RAMP & MARY GRUBBS HWY (KY-14)

Phase	1	2	6	8
Movement(s) Served	WBL	EBT	WBTL	SBL
Maximum Green (s)	13.5	113.5	133.5	70.0
Minimum Green (s)	6.0	6.0	30.0	8.0
Recall	None	C-Max	C-Max	None
Avg. Green (s)	13.8	122.4	135.9	67.8
g/C Ratio	-0.01	NA	NA	NA
Cycles Skipped (%)	27	0	0	0
Cycles @ Minimum (%)	0	0	0	0
Cycles Maxed Out (%)	47	100	100	75
Cycles with Peds (%)	0	0	0	0

**Controller Summary**

Average Cycle Length (s): NA  
 Number of Complete Cycles : 0

Intersection: 102: I-75 NB OFF RAMP/I-75 NB ON RAMP & MARY GRUBBS HWY (KY-14)

Phase	1	3	4	8
Movement(s) Served	NBL	EBL	WBT	EBTL
Maximum Green (s)	23.0	23.5	43.3	73.3
Minimum Green (s)	8.0	8.0	30.0	30.0
Recall	None	C-Max	None	C-Max
Avg. Green (s)	20.0	27.0	43.3	77.9
g/C Ratio	NA	NA	NA	NA
Cycles Skipped (%)	0	0	0	0
Cycles @ Minimum (%)	0	0	0	0
Cycles Maxed Out (%)	53	100	100	100
Cycles with Peds (%)	0	0	0	0

**Controller Summary**

Average Cycle Length (s): NA  
 Number of Complete Cycles : 0

100: WALTON VERONA RD/BEAVER RD & STEPHENSON MILL RD/MARY GRUBBS HWY (KY-14)

Approach	EB	WB	NB	SB	All
Denied Del/Veh (s)	0.1	0.4	0.4	0.0	0.3
Total Del/Veh (s)	94.3	31.4	95.2	79.8	61.5

101: I-75 SB ON RAMP/I-75 SB OFF RAMP & MARY GRUBBS HWY (KY-14) Performance by approach

Approach	EB	WB	SB	All
Denied Del/Veh (s)	0.0	1.6	0.0	0.5
Total Del/Veh (s)	10.9	129.8	84.9	77.0

102: I-75 NB OFF RAMP/I-75 NB ON RAMP & MARY GRUBBS HWY (KY-14) Performance by approach

Approach	EB	WB	NB	All
Denied Del/Veh (s)	0.0	0.0	0.0	0.0
Total Del/Veh (s)	15.3	39.5	55.4	30.9

200: BEAVER RD & CHURCH DRIVE (EX) Performance by approach

Approach	EB	NW	SW	All
Denied Del/Veh (s)	0.2	0.0	0.1	0.1
Total Del/Veh (s)	0.8	0.2	3.9	0.6

201: BEAVER RD & SCHOOL DRIVE (PROP) Performance by approach

Approach	EB	WB	All
Denied Del/Veh (s)	0.0	0.0	0.0
Total Del/Veh (s)	0.0	0.2	0.1

Total Zone Performance

Denied Del/Veh (s)	2.1
Total Del/Veh (s)	2378.4

Summary of All Intervals

	1	2	3	4	5	6	7
<b>Run Number</b>							
Start Time	4:35	4:35	4:35	4:35	4:35	4:35	4:35
End Time	5:45	5:45	5:45	5:45	5:45	5:45	5:45
Total Time (min)	70	70	70	70	70	70	70
Time Recorded (min)	60	60	60	60	60	60	60
# of Intervals	5	5	5	5	5	5	5
# of Recorded Intervals	4	4	4	4	4	4	4
Vehs Entered	4409	4277	4340	4408	4178	4351	4450
Vehs Exited	4391	4261	4265	4464	4179	4243	4390
Starting Vehs	145	112	139	175	115	133	142
Ending Vehs	163	128	214	119	114	241	202
Travel Distance (mi)	2336	2269	2280	2342	2166	2272	2328
Travel Time (hr)	157.2	151.5	211.0	144.8	124.8	162.7	180.7
Total Delay (hr)	93.8	89.5	149.1	80.5	65.5	100.9	117.2
Total Stops	3853	3946	4543	3859	3660	4161	4658
Fuel Used (gal)	105.6	102.8	116.7	103.0	94.5	105.1	111.5

Summary of All Intervals

	8	9	10	Avg
<b>Run Number</b>				
Start Time	4:35	4:35	4:35	4:35
End Time	5:45	5:45	5:45	5:45
Total Time (min)	70	70	70	70
Time Recorded (min)	60	60	60	60
# of Intervals	5	5	5	5
# of Recorded Intervals	4	4	4	4
Vehs Entered	4193	4268	4208	4311
Vehs Exited	4158	4253	4203	4282
Starting Vehs	146	112	127	131
Ending Vehs	181	127	132	155
Travel Distance (mi)	2206	2249	2196	2264
Travel Time (hr)	136.0	153.1	122.6	154.4
Total Delay (hr)	75.6	91.6	62.7	92.6
Total Stops	3747	4046	3543	4004
Fuel Used (gal)	96.9	102.2	94.3	103.3

Interval #0 Information Seeding

Start Time 4:35  
 End Time 4:45  
 Total Time (min) 10  
 Volumes adjusted by Growth Factors, Anti PHF.  
 No data recorded this interval.

**Interval #1 Information Recording**

Start Time 4:45  
 End Time 5:00  
 Total Time (min) 15  
 Volumes adjusted by Growth Factors, Anti PHF.

Run Number	1	2	3	4	5	6	7
Vehs Entered	1090	1130	1086	1098	1019	1069	1126
Vehs Exited	1097	1094	1088	1150	1016	1059	1101
Starting Vehs	145	112	139	175	115	133	142
Ending Vehs	138	148	137	123	118	143	167
Travel Distance (mi)	583	590	571	597	529	558	597
Travel Time (hr)	40.2	36.1	34.5	37.5	30.0	36.5	41.8
Total Delay (hr)	24.3	20.1	18.9	21.0	15.6	21.3	25.4
Total Stops	942	966	965	984	851	970	1097
Fuel Used (gal)	26.8	25.7	25.1	26.6	22.8	25.4	27.3

**Interval #1 Information Recording**

Start Time 4:45  
 End Time 5:00  
 Total Time (min) 15  
 Volumes adjusted by Growth Factors, Anti PHF.

Run Number	8	9	10	Avg
Vehs Entered	1073	1025	1079	1075
Vehs Exited	1097	1011	1078	1079
Starting Vehs	146	112	127	131
Ending Vehs	122	126	128	125
Travel Distance (mi)	572	532	576	570
Travel Time (hr)	35.5	30.5	31.8	35.5
Total Delay (hr)	19.9	16.0	16.1	19.9
Total Stops	1026	846	907	957
Fuel Used (gal)	25.4	22.9	24.6	25.3

**Interval #2 Information**

Start Time 5:00  
 End Time 5:15  
 Total Time (min) 15

Volumes adjusted by PHF, Growth Factors.

Run Number	1	2	3	4	5	6	7
Vehs Entered	1136	1038	1108	1068	1086	1057	1089
Vehs Exited	1122	1025	1031	1044	1071	1039	1074
Starting Vehs	138	148	137	123	118	143	167
Ending Vehs	152	161	214	147	133	161	182
Travel Distance (mi)	604	551	564	556	559	568	561
Travel Time (hr)	42.3	39.3	42.7	31.3	35.7	39.0	44.4
Total Delay (hr)	26.0	24.1	27.4	16.1	20.4	23.6	29.0
Total Stops	1016	993	1087	860	1046	1063	1080
Fuel Used (gal)	27.5	25.6	26.3	23.7	25.0	25.9	27.0

**Interval #2 Information**

Start Time 5:00  
 End Time 5:15  
 Total Time (min) 15

Volumes adjusted by PHF, Growth Factors.

Run Number	8	9	10	Avg
Vehs Entered	1073	1083	1001	1070
Vehs Exited	1065	1063	1021	1056
Starting Vehs	122	126	128	125
Ending Vehs	130	146	108	144
Travel Distance (mi)	572	568	523	563
Travel Time (hr)	36.1	33.2	26.8	37.1
Total Delay (hr)	20.5	17.6	12.5	21.7
Total Stops	986	953	780	984
Fuel Used (gal)	25.3	24.5	22.0	25.3

**Interval #3 Information**

Start Time 5:15  
 End Time 5:30  
 Total Time (min) 15  
 Volumes adjusted by Growth Factors, Anti PHF.

Run Number	1	2	3	4	5	6	7
Vehs Entered	1059	1030	1011	1089	1046	1092	1071
Vehs Exited	1083	1060	1035	1084	1072	1073	1067
Starting Vehs	152	161	214	147	133	161	182
Ending Vehs	128	131	190	152	107	180	186
Travel Distance (mi)	571	554	561	573	550	575	567
Travel Time (hr)	37.8	43.0	65.4	38.5	30.2	39.4	46.9
Total Delay (hr)	22.2	27.8	50.3	22.8	15.2	23.8	31.4
Total Stops	993	1056	1102	1000	908	987	1248
Fuel Used (gal)	25.7	26.6	31.7	25.9	23.9	25.9	27.6

**Interval #3 Information**

Start Time 5:15  
 End Time 5:30  
 Total Time (min) 15  
 Volumes adjusted by Growth Factors, Anti PHF.

Run Number	8	9	10	Avg
Vehs Entered	1001	1077	1062	1048
Vehs Exited	1019	1007	1042	1055
Starting Vehs	130	146	108	144
Ending Vehs	112	216	128	149
Travel Distance (mi)	531	541	545	557
Travel Time (hr)	28.9	40.9	31.5	40.3
Total Delay (hr)	14.3	26.2	16.6	25.1
Total Stops	831	993	944	1005
Fuel Used (gal)	22.5	25.3	23.6	25.9

Interval #4 Information

Start Time 5:30  
 End Time 5:45  
 Total Time (min) 15  
 Volumes adjusted by Growth Factors, Anti PHF.

Run Number	1	2	3	4	5	6	7
Vehs Entered	1124	1079	1135	1153	1027	1133	1164
Vehs Exited	1089	1082	1111	1186	1020	1072	1148
Starting Vehs	128	131	190	152	107	180	186
Ending Vehs	163	128	214	119	114	241	202
Travel Distance (mi)	578	575	584	617	529	571	603
Travel Time (hr)	36.9	33.2	68.4	37.4	28.8	47.7	47.7
Total Delay (hr)	21.3	17.5	52.5	20.6	14.3	32.2	31.4
Total Stops	902	931	1389	1015	855	1141	1233
Fuel Used (gal)	25.6	24.9	33.5	26.8	22.8	27.9	29.5

Interval #4 Information

Start Time 5:30  
 End Time 5:45  
 Total Time (min) 15  
 Volumes adjusted by Growth Factors, Anti PHF.

Run Number	8	9	10	Avg
Vehs Entered	1046	1083	1066	1099
Vehs Exited	977	1172	1062	1091
Starting Vehs	112	216	128	149
Ending Vehs	181	127	132	155
Travel Distance (mi)	530	607	551	575
Travel Time (hr)	35.4	48.4	32.5	41.6
Total Delay (hr)	20.9	31.8	17.5	26.0
Total Stops	904	1254	912	1053
Fuel Used (gal)	23.7	29.5	24.1	26.8

100: WALTON VERONA RD/BEAVER RD & STEPHENSON MILL RD/MARY GRUBBS HWY (KY-14) I

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBT	NBR	SBL	SBT	SBR	All
Denied Del/Veh (s)	0.1	0.2	0.1	0.3	0.3	0.4	3.1	0.3	0.0	0.0	0.0	0.3
Total Del/Veh (s)	110.7	104.3	51.1	27.4	28.9	44.2	100.0	113.1	79.0	89.4	63.7	67.3

101: I-75 SB ON RAMP/I-75 SB OFF RAMP & MARY GRUBBS HWY (KY-14) Performance by movement

Movement	EBT	EBR	WBL	WBT	SBL	SBR	All
Denied Del/Veh (s)	0.1	0.0	1.9	2.2	0.0	0.0	0.6
Total Del/Veh (s)	12.9	8.1	106.0	148.8	90.9	60.8	76.2

102: I-75 NB OFF RAMP/I-75 NB ON RAMP & MARY GRUBBS HWY (KY-14) Performance by movement

Movement	EBL	EBT	WBT	WBR	NBL	NBR	All
Denied Del/Veh (s)	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Total Del/Veh (s)	27.0	12.0	59.3	21.7	114.3	40.7	30.3

200: BEAVER RD & CHURCH DRIVE (EX) Performance by movement

Movement	EBR	NWL	NWT	All
Denied Del/Veh (s)	0.2	0.0	0.0	0.1
Total Del/Veh (s)	0.8	0.2	0.7	0.5

201: BEAVER RD & SCHOOL DRIVE (PROP) Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.1	0.1	0.0
Total Del/Veh (s)	2.0	0.1	0.4	0.0	5.2	3.1	0.6

Total Zone Performance

Denied Del/Veh (s)	2.4
Total Del/Veh (s)	2250.0

Intersection: 100: WALTON VERONA RD/BEAVER RD & STEPHENSON MILL RD/MARY GRUBBS HWY

Movement	EB	WB	WB	NB	NB	SB	B8
Directions Served	LTR	LT	R	LT	R	LTR	T
Maximum Queue (ft)	181	124	118	172	714	304	130
Average Queue (ft)	75	108	88	14	365	199	15
95th Queue (ft)	158	132	138	90	735	316	78
Link Distance (ft)	1681	106	106		1545	216	795
Upstream Blk Time (%)		50	27			16	
Queuing Penalty (veh)		123	66			0	
Storage Bay Dist (ft)				110			
Storage Blk Time (%)					56		
Queuing Penalty (veh)					4		

Intersection: 101: I-75 SB ON RAMP/I-75 SB OFF RAMP & MARY GRUBBS HWY (KY-14)

Movement	EB	EB	WB	WB	WB	SB	SB	B20	B20	B22
Directions Served	T	TR	L	T	T	L	R	T	T	T
Maximum Queue (ft)	129	121	225	556	265	781	480	77	25	14
Average Queue (ft)	77	65	157	430	77	518	224	11	2	1
95th Queue (ft)	150	133	298	691	198	784	418	85	36	13
Link Distance (ft)	106	106		532	532	748	748	194	194	650
Upstream Blk Time (%)	10	5		31	0	4		1	0	
Queuing Penalty (veh)	22	12		76	0	0		0	0	
Storage Bay Dist (ft)			110							
Storage Blk Time (%)			19	73						
Queuing Penalty (veh)			27	142						

Intersection: 102: I-75 NB OFF RAMP/I-75 NB ON RAMP & MARY GRUBBS HWY (KY-14)

Movement	EB	EB	EB	WB	WB	B3	B3	NB	NB
Directions Served	L	T	T	T	TR	T	T	L	R
Maximum Queue (ft)	239	231	229	293	293	678	685	258	237
Average Queue (ft)	105	108	119	214	219	222	209	89	111
95th Queue (ft)	218	220	239	335	335	770	744	221	194
Link Distance (ft)		532	532	198	198	1003	1003	576	576
Upstream Blk Time (%)				39	22	4	5		
Queuing Penalty (veh)				0	0	0	0		
Storage Bay Dist (ft)	110								
Storage Blk Time (%)	13	6							
Queuing Penalty (veh)	43	10							

# Queuing and Blocking Report

08/01/2022

## Intersection: 200: BEAVER RD & CHURCH DRIVE (EX)

### Movement

Directions Served  
Maximum Queue (ft)  
Average Queue (ft)  
95th Queue (ft)  
Link Distance (ft)  
Upstream Blk Time (%)  
Queuing Penalty (veh)  
Storage Bay Dist (ft)  
Storage Blk Time (%)  
Queuing Penalty (veh)

## Intersection: 201: BEAVER RD & SCHOOL DRIVE (PROP)

### Movement

	EB	SB
Directions Served	LT	LR
Maximum Queue (ft)	28	41
Average Queue (ft)	1	21
95th Queue (ft)	12	45
Link Distance (ft)	126	199
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

### Zone Summary

Zone wide Queuing Penalty: 526

Intersection: 100: WALTON VERONA RD/BEAVER RD & STEPHENSON MILL RD/MARY GRUBBS F

Phase	1	7	8	9
Movement(s) Served	NBTL	WBTL	SBTL	EBTL
Maximum Green (s)	54.0	81.0	35.0	13.5
Minimum Green (s)	6.0	6.0	6.0	6.0
Recall	None	None	None	None
Avg. Green (s)	53.2	74.7	44.0	16.5
g/C Ratio	-0.01	NA	NA	-0.01
Cycles Skipped (%)	18	0	0	7
Cycles @ Minimum (%)	0	0	0	0
Cycles Maxed Out (%)	18	13	6	7
Cycles with Peds (%)	0	0	0	0

**Controller Summary**

Average Cycle Length (s): NA  
 Number of Complete Cycles : 0

Intersection: 101: I-75 SB ON RAMP/I-75 SB OFF RAMP & MARY GRUBBS HWY (KY-14)

Phase	1	2	6	6
Movement(s) Served	WBL	EBT	WBTL	SBL
Maximum Green (s)	13.5	113.5	133.5	70.0
Minimum Green (s)	6.0	6.0	30.0	8.0
Recall	None	C-Max	C-Max	None
Avg. Green (s)	14.9	121.7	134.9	68.2
g/C Ratio	-0.01	NA	NA	NA
Cycles Skipped (%)	29	0	0	0
Cycles @ Minimum (%)	0	0	0	0
Cycles Maxed Out (%)	50	100	100	81
Cycles with Peds (%)	0	0	0	0

**Controller Summary**

Average Cycle Length (s): NA  
 Number of Complete Cycles : 0

Actuated Signals, Observed Splits

08/01/2022

Intersection: 102: I-75 NB OFF RAMP/I-75 NB ON RAMP & MARY GRUBBS HWY (KY-14)

Phase	1	3	4	8
Movement(s) Served	NBL	EBL	WBT	EBTL
Maximum Green (s)	23.0	23.5	43.3	73.3
Minimum Green (s)	8.0	8.0	30.0	30.0
Recall	None	C-Max	None	C-Max
Avg. Green (s)	20.2	27.7	44.6	78.2
g/C Ratio	NA	NA	NA	NA
Cycles Skipped (%)	0	0	0	0
Cycles @ Minimum (%)	0	0	0	0
Cycles Maxed Out (%)	48	100	100	100
Cycles with Peds (%)	0	0	0	0

**Controller Summary**

Average Cycle Length (s): NA  
 Number of Complete Cycles : 0

100: WALTON VERONA RD/BEAVER RD & STEPHENSON MILL RD/MARY GRUBBS HWY (KY-14)

Approach	EB	WB	NB	SB	All
Denied Del/Veh (s)	0.2	0.3	0.4	0.0	0.3
Total Del/Veh (s)	101.1	32.8	112.7	79.3	67.3

101: I-75 SB ON RAMP/I-75 SB OFF RAMP & MARY GRUBBS HWY (KY-14) Performance by approach

Approach	EB	WB	SB	All
Denied Del/Veh (s)	0.1	2.1	0.0	0.6
Total Del/Veh (s)	12.1	131.6	82.2	76.2

102: I-75 NB OFF RAMP/I-75 NB ON RAMP & MARY GRUBBS HWY (KY-14) Performance by approach

Approach	EB	WB	NB	All
Denied Del/Veh (s)	0.0	0.0	0.0	0.0
Total Del/Veh (s)	15.1	38.2	57.2	30.3

200: BEAVER RD & CHURCH DRIVE (EX) Performance by approach

Approach	EB	NW	All
Denied Del/Veh (s)	0.2	0.0	0.1
Total Del/Veh (s)	0.8	0.2	0.5

201: BEAVER RD & SCHOOL DRIVE (PROP) Performance by approach

Approach	EB	WB	SB	All
Denied Del/Veh (s)	0.0	0.0	0.1	0.0
Total Del/Veh (s)	0.2	0.3	4.2	0.6

Total Zone Performance

Denied Del/Veh (s)	2.4
Total Del/Veh (s)	2250.0

Summary of All Intervals

Run Number	1	2	3	4	5	6	7
Start Time	7:05	7:05	7:05	7:05	7:05	7:05	7:05
End Time	8:15	8:15	8:15	8:15	8:15	8:15	8:15
Total Time (min)	70	70	70	70	70	70	70
Time Recorded (min)	60	60	60	60	60	60	60
# of Intervals	5	5	5	5	5	5	5
# of Recorded Intervals	4	4	4	4	4	4	4
Vehs Entered	4419	4243	4354	4318	4401	4369	4497
Vehs Exited	4378	4136	4246	4232	4373	4266	4398
Starting Vehs	107	125	123	160	155	141	158
Ending Vehs	148	232	231	246	183	244	257
Travel Distance (mi)	2296	2192	2221	2220	2254	2222	2310
Travel Time (hr)	158.1	228.9	229.3	209.8	175.9	191.1	258.8
Total Delay (hr)	94.8	168.8	168.1	148.9	113.5	129.9	195.3
Total Stops	3891	3969	4556	3570	4287	4108	4730
Fuel Used (gal)	105.2	117.4	120.0	113.5	108.9	110.7	129.0

Summary of All Intervals

Run Number	8	9	10	Avg
Start Time	7:05	7:05	7:05	7:05
End Time	8:15	8:15	8:15	8:15
Total Time (min)	70	70	70	70
Time Recorded (min)	60	60	60	60
# of Intervals	5	5	5	5
# of Recorded Intervals	4	4	4	4
Vehs Entered	4220	4273	4261	4337
Vehs Exited	4126	4220	4090	4247
Starting Vehs	123	160	133	131
Ending Vehs	217	213	304	221
Travel Distance (mi)	2164	2201	2163	2224
Travel Time (hr)	214.0	197.2	312.4	217.5
Total Delay (hr)	154.5	136.3	253.0	156.3
Total Stops	4085	3879	4361	4144
Fuel Used (gal)	114.4	111.0	134.8	116.5

Interval #0 Information Seeding

Start Time 7:05  
 End Time 7:15  
 Total Time (min) 10  
 Volumes adjusted by Growth Factors, Anti PHF.  
 No data recorded this interval.

Interval #1 Information Recording

Start Time 7:15  
 End Time 7:30  
 Total Time (min) 15

Volumes adjusted by Growth Factors, Anti PHF.

Run Number	1	2	3	4	5	6	7
Vehs Entered	1081	1119	1150	1045	1053	1104	1125
Vehs Exited	1003	1098	1079	1042	1061	1084	1064
Starting Vehs	107	125	123	160	155	141	158
Ending Vehs	185	146	194	163	147	161	219
Travel Distance (mi)	538	577	563	535	551	563	560
Travel Time (hr)	32.8	38.3	42.1	45.2	35.8	35.3	46.4
Total Delay (hr)	18.0	22.5	26.6	30.5	20.5	19.8	31.0
Total Stops	932	959	1036	827	950	904	1089
Fuel Used (gal)	23.5	26.3	26.8	26.2	24.7	24.9	27.7

Interval #1 Information Recording

Start Time 7:15  
 End Time 7:30  
 Total Time (min) 15

Volumes adjusted by Growth Factors, Anti PHF.

Run Number	8	9	10	Avg
Vehs Entered	1086	1083	1160	1099
Vehs Exited	1054	1097	1090	1067
Starting Vehs	123	160	133	131
Ending Vehs	155	146	203	161
Travel Distance (mi)	546	562	575	557
Travel Time (hr)	31.4	37.9	43.1	38.8
Total Delay (hr)	16.3	22.3	27.2	23.5
Total Stops	865	931	1106	958
Fuel Used (gal)	23.5	25.7	27.1	25.6

# SimTraffic Simulation Summary

08/01/2022

## Interval #2 Information

Start Time	7:30
End Time	7:45
Total Time (min)	15

Volumes adjusted by PHF, Growth Factors.

Run Number	1	2	3	4	5	6	7
Vehs Entered	1159	1065	1107	1112	1154	1048	1074
Vehs Exited	1142	1019	1072	1054	1087	977	1024
Starting Vehs	185	146	194	163	147	161	219
Ending Vehs	202	192	229	221	214	232	269
Travel Distance (mi)	617	554	562	565	570	512	547
Travel Time (hr)	44.8	43.5	53.4	50.1	46.8	42.4	68.1
Total Delay (hr)	27.9	28.3	37.8	34.5	31.1	28.4	53.0
Total Stops	1091	1031	1209	917	1144	907	1146
Fuel Used (gal)	28.7	26.2	29.2	28.0	28.0	25.0	32.1

## Interval #2 Information

Start Time	7:30
End Time	7:45
Total Time (min)	15

Volumes adjusted by PHF, Growth Factors.

Run Number	8	9	10	Avg
Vehs Entered	1080	1097	1051	1091
Vehs Exited	1023	1061	987	1045
Starting Vehs	155	146	203	161
Ending Vehs	212	182	267	218
Travel Distance (mi)	545	562	518	555
Travel Time (hr)	44.4	36.8	59.0	48.9
Total Delay (hr)	29.5	21.2	44.7	33.7
Total Stops	994	944	1082	1045
Fuel Used (gal)	26.6	25.0	28.9	27.8

Interval #3 Information

Start Time 7:45  
 End Time 8:00  
 Total Time (min) 15

Volumes adjusted by Growth Factors, Anti PHF.

Run Number	1	2	3	4	5	6	7
Vehs Entered	1105	1050	1075	1030	1087	1094	1175
Vehs Exited	1112	1050	1067	1049	1118	1130	1149
Starting Vehs	202	192	229	221	214	232	269
Ending Vehs	195	192	237	202	183	196	295
Travel Distance (mi)	576	544	561	553	570	589	604
Travel Time (hr)	42.2	55.3	64.6	51.4	48.2	53.5	72.2
Total Delay (hr)	26.3	40.3	49.2	36.3	32.4	37.3	55.6
Total Stops	899	1026	1280	856	1085	1227	1272
Fuel Used (gal)	27.1	29.0	32.0	28.3	28.7	30.2	34.7

Interval #3 Information

Start Time 7:45  
 End Time 8:00  
 Total Time (min) 15

Volumes adjusted by Growth Factors, Anti PHF.

Run Number	8	9	10	Avg
Vehs Entered	1009	1092	1046	1074
Vehs Exited	975	1046	1022	1073
Starting Vehs	212	182	267	218
Ending Vehs	246	228	291	219
Travel Distance (mi)	519	554	553	562
Travel Time (hr)	59.3	48.4	84.7	58.0
Total Delay (hr)	45.0	33.1	69.6	42.5
Total Stops	1036	1032	1071	1078
Fuel Used (gal)	29.3	28.0	35.4	30.3

**Interval #4 Information**

Start Time 8:00  
 End Time 8:15  
 Total Time (min) 15  
 Volumes adjusted by Growth Factors, Anti PHF.

Run Number	1	2	3	4	5	6	7
Vehs Entered	1074	1009	1022	1131	1107	1123	1123
Vehs Exited	1121	969	1028	1087	1107	1075	1161
Starting Vehs	195	192	237	202	183	196	295
Ending Vehs	148	232	231	246	183	244	257
Travel Distance (mi)	565	518	535	567	563	558	598
Travel Time (hr)	38.3	91.8	69.2	63.1	45.1	59.9	72.2
Total Delay (hr)	22.7	77.6	54.5	47.6	29.5	44.5	55.7
Total Stops	969	953	1031	970	1108	1070	1223
Fuel Used (gal)	26.0	35.9	31.9	31.1	27.4	30.6	34.5

**Interval #4 Information**

Start Time 8:00  
 End Time 8:15  
 Total Time (min) 15  
 Volumes adjusted by Growth Factors, Anti PHF.

Run Number	8	9	10	Avg
Vehs Entered	1045	1001	1004	1061
Vehs Exited	1074	1016	991	1062
Starting Vehs	246	228	291	219
Ending Vehs	217	213	304	221
Travel Distance (mi)	554	523	517	550
Travel Time (hr)	78.9	74.0	125.7	71.8
Total Delay (hr)	63.6	59.6	111.5	56.7
Total Stops	1190	972	1102	1058
Fuel Used (gal)	35.0	32.3	43.4	32.8

100: WALTON VERONA RD/BEAVER RD & STEPHENSON MILL RD/MARY GRUBBS HWY (KY-14)

Movement	EBL	EBT	WBL	WBT	WBR	NBT	NBR	SBL	SBT	SBR	All
Denied Del/Veh (s)	0.1	0.2	0.9	0.5	0.4	23.4	27.3	0.0	0.0	0.0	9.6
Total Del/Veh (s)	95.6	100.5	37.1	36.8	49.1	144.0	197.9	89.5	86.4	73.9	106.8

101: I-75 SB ON RAMP/I-75 SB OFF RAMP & MARY GRUBBS HWY (KY-14) Performance by movement

Movement	EBT	EBR	WBL	WBT	SBL	SBR	All
Denied Del/Veh (s)	0.0	0.0	0.0	4.0	0.0	0.0	0.7
Total Del/Veh (s)	14.1	9.5	167.3	243.2	74.2	78.5	87.2

102: I-75 NB OFF RAMP/I-75 NB ON RAMP & MARY GRUBBS HWY (KY-14) Performance by movement

Movement	EBL	EBT	WBT	WBR	NBL	NBR	All
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Del/Veh (s)	31.0	12.6	107.6	30.8	380.6	45.4	49.1

200: BEAVER RD & CHURCH DRIVE (EX) Performance by movement

Movement	EBL	EBR	NWL	NWR	SWL	SWR	All
Denied Del/Veh (s)	0.2	0.2	0.0	0.0	0.1	0.1	0.1
Total Del/Veh (s)	1.9	1.0	0.4	0.1	6.9	3.9	1.4

201: BEAVER RD & SCHOOL DRIVE (PROP) Performance by movement

Movement	EBT	WBT	All
Denied Del/Veh (s)	0.0	0.0	0.0
Total Del/Veh (s)	0.1	0.2	0.2

Total Zone Performance

Denied Del/Veh (s)	15.1
Total Del/Veh (s)	2517.1

Queuing and Blocking Report

08/01/2022

Intersection: 100: WALTON VERONA RD/BEAVER RD & STEPHENSON MILL RD/MARY GRUBBS H

Movement	EB	WB	WB	NB	NB	SB	B8
Directions Served	LTR	LT	R	LT	R	LTR	T
Maximum Queue (ft)	257	134	132	103	1206	315	132
Average Queue (ft)	110	111	101	6	784	205	15
95th Queue (ft)	203	126	136	62	1465	325	76
Link Distance (ft)	1681	106	106		1545	216	795
Upstream Blk Time (%)		62	47		9	17	
Queuing Penalty (veh)		147	112		0	0	
Storage Bay Dist (ft)				110			
Storage Blk Time (%)					69		
Queuing Penalty (veh)					7		

Intersection: 101: I-75 SB ON RAMP/I-75 SB OFF RAMP & MARY GRUBBS HWY (KY-14)

Movement	EB	EB	WB	WB	WB	SB	SB	B20
Directions Served	T	TR	L	T	T	L	R	T
Maximum Queue (ft)	133	122	225	557	335	710	512	2
Average Queue (ft)	75	64	103	475	151	415	247	0
95th Queue (ft)	151	135	270	702	319	657	447	2
Link Distance (ft)	106	106		532	532	748	748	194
Upstream Blk Time (%)	17	9		55		1		
Queuing Penalty (veh)	46	25		107		0		
Storage Bay Dist (ft)			110					
Storage Blk Time (%)			3	84				
Queuing Penalty (veh)			5	89				

Intersection: 102: I-75 NB OFF RAMP/I-75 NB ON RAMP & MARY GRUBBS HWY (KY-14)

Movement	EB	EB	EB	WB	WB	B3	B3	NB	NB	B18	B18	B14
	L	T	T	T	TR	T	T	L	R	T	T	T
Directions Served						933	958	541	293	87	35	37
Maximum Queue (ft)	248	258	242	299	304	497	549	249	143	20	17	9
Average Queue (ft)	132	114	119	219	245	1241	1254	601	297	140	134	86
95th Queue (ft)	234	236	245	351	357	1003	1003	576	576	276	276	354
Link Distance (ft)		532	532	198	198	23	29	13	1	3	4	0
Upstream Blk Time (%)				58	41	0	0	0	0	0	0	0
Queuing Penalty (veh)				0	0	0	0	0	0	0	0	0
Storage Bay Dist (ft)	110											
Storage Blk Time (%)	19	7										
Queuing Penalty (veh)	66	15										

Intersection: 102: I-75 NB OFF RAMP/I-75 NB ON RAMP & MARY GRUBBS HWY (KY-14)

Movement	B14
Directions Served	T
Maximum Queue (ft)	41
Average Queue (ft)	11
95th Queue (ft)	110
Link Distance (ft)	354
Upstream Blk Time (%)	2
Queuing Penalty (veh)	0
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 200: BEAVER RD & CHURCH DRIVE (EX)

Movement	EB	NW	SW
Directions Served	LR	LR	LR
Maximum Queue (ft)	32	43	63
Average Queue (ft)	3	3	30
95th Queue (ft)	21	20	50
Link Distance (ft)	634	173	178
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

# Queuing and Blocking Report

08/01/2022

## Intersection: 201: BEAVER RD & SCHOOL DRIVE (PROP)

### Movement

Directions Served

Maximum Queue (ft)

Average Queue (ft)

95th Queue (ft)

Link Distance (ft)

Upstream Blk Time (%)

Queuing Penalty (veh)

Storage Bay Dist (ft)

Storage Blk Time (%)

Queuing Penalty (veh)

### Zone Summary

Zone wide Queuing Penalty: 618

Intersection: 100: WALTON VERONA RD/BEAVER RD & STEPHENSON MILL RD/MARY GRUBBS F

Phase	1	7	8	9
Movement(s) Served	NBTL	WBTL	SBTL	EBTL
Maximum Green (s)	54.0	81.0	35.0	13.5
Minimum Green (s)	6.0	6.0	6.0	6.0
Recall	None	None	None	None
Avg. Green (s)	68.6	63.6	36.1	18.3
g/C Ratio	NA	NA	NA	NA
Cycles Skipped (%)	0	0	0	0
Cycles @ Minimum (%)	0	0	0	0
Cycles Maxed Out (%)	69	29	13	13
Cycles with Peds (%)	0	0	0	0

**Controller Summary**

Average Cycle Length (s): NA  
 Number of Complete Cycles : 0

Intersection: 101: I-75 SB ON RAMP/I-75 SB OFF RAMP & MARY GRUBBS HWY (KY-14)

Phase	1	2	6	8
Movement(s) Served	WBL	EBT	WBTL	SBL
Maximum Green (s)	13.5	113.5	133.5	70.0
Minimum Green (s)	6.0	6.0	30.0	8.0
Recall	None	C-Max	C-Max	None
Avg. Green (s)	15.3	131.6	135.9	67.6
g/C Ratio	-0.01	NA	NA	NA
Cycles Skipped (%)	77	0	0	0
Cycles @ Minimum (%)	0	0	0	0
Cycles Maxed Out (%)	8	100	100	71
Cycles with Peds (%)	0	0	0	0

**Controller Summary**

Average Cycle Length (s): NA  
 Number of Complete Cycles : 0

Intersection: 102: I-75 NB OFF RAMP/I-75 NB ON RAMP & MARY GRUBBS HWY (KY-14)

Phase	1	3	4	8
Movement(s) Served	NBL	EBL	WBT	EBTL
Maximum Green (s)	23.0	23.5	43.3	73.3
Minimum Green (s)	8.0	8.0	30.0	30.0
Recall	None	C-Max	None	C-Max
Avg. Green (s)	22.0	25.3	43.3	76.7
g/C Ratio	NA	NA	NA	NA
Cycles Skipped (%)	0	0	0	0
Cycles @ Minimum (%)	0	0	0	0
Cycles Maxed Out (%)	81	100	100	100
Cycles with Peds (%)	0	0	0	0

**Controller Summary**

Average Cycle Length (s): NA  
 Number of Complete Cycles : 0

100: WALTON VERONA RD/BEAVER RD & STEPHENSON MILL RD/MARY GRUBBS HWY (KY-14)

Approach	EB	WB	NB	SB	All
Denied Del/Veh (s)	0.2	0.7	27.2	0.0	9.6
Total Del/Veh (s)	101.2	41.9	198.8	87.9	106.8

101: I-75 SB ON RAMP/I-75 SB OFF RAMP & MARY GRUBBS HWY (KY-14) Performance by approach

Approach	EB	WB	SB	All
Denied Del/Veh (s)	0.0	3.0	0.0	0.7
Total Del/Veh (s)	13.5	223.7	75.5	87.2

102: I-75 NB OFF RAMP/I-75 NB ON RAMP & MARY GRUBBS HWY (KY-14) Performance by approach

Approach	EB	WB	NB	All
Denied Del/Veh (s)	0.0	0.0	0.0	0.0
Total Del/Veh (s)	16.6	57.0	129.8	49.1

200: BEAVER RD & CHURCH DRIVE (EX) Performance by approach

Approach	EB	NW	SW	All
Denied Del/Veh (s)	0.2	0.0	0.1	0.1
Total Del/Veh (s)	1.2	0.4	4.5	1.4

201: BEAVER RD & SCHOOL DRIVE (PROP) Performance by approach

Approach	EB	WB	All
Denied Del/Veh (s)	0.0	0.0	0.0
Total Del/Veh (s)	0.1	0.2	0.2

Total Zone Performance

Denied Del/Veh (s)	15.1
Total Del/Veh (s)	2517.1

Summary of All Intervals

Run Number	1	2	3	4	5	6	7
Start Time	7:05	7:05	7:05	7:05	7:05	7:05	7:05
End Time	8:15	8:15	8:15	8:15	8:15	8:15	8:15
Total Time (min)	70	70	70	70	70	70	70
Time Recorded (min)	60	60	60	60	60	60	60
# of Intervals	5	5	5	5	5	5	5
# of Recorded Intervals	4	4	4	4	4	4	4
Vehs Entered	4812	4766	4713	4711	4627	4726	4698
Vehs Exited	4710	4680	4668	4621	4502	4656	4670
Starting Vehs	125	142	158	174	157	151	186
Ending Vehs	227	228	203	264	282	221	214
Travel Distance (mi)	2484	2439	2430	2427	2356	2416	2439
Travel Time (hr)	196.4	197.9	201.5	224.7	237.9	166.4	201.8
Total Delay (hr)	128.0	130.6	134.8	157.8	173.1	99.5	134.5
Total Stops	4536	4438	3972	4176	4326	4178	4652
Fuel Used (gal)	120.8	120.0	118.6	123.6	125.0	112.4	121.3

Summary of All Intervals

Run Number	8	9	10	Avg
Start Time	7:05	7:05	7:05	7:05
End Time	8:15	8:15	8:15	8:15
Total Time (min)	70	70	70	70
Time Recorded (min)	60	60	60	60
# of Intervals	5	5	5	5
# of Recorded Intervals	4	4	4	4
Vehs Entered	4579	4732	4735	4707
Vehs Exited	4555	4670	4679	4643
Starting Vehs	169	149	198	161
Ending Vehs	193	211	254	225
Travel Distance (mi)	2374	2425	2456	2425
Travel Time (hr)	188.9	221.4	234.6	207.1
Total Delay (hr)	123.4	154.4	167.2	140.3
Total Stops	4330	4317	4715	4364
Fuel Used (gal)	116.1	124.4	129.7	121.2

Interval #0 Information Seeding

Start Time 7:05  
 End Time 7:15  
 Total Time (min) 10  
 Volumes adjusted by Growth Factors, Anti PHF.  
 No data recorded this interval.

Interval #1 Information Recording

Start Time 7:15  
 End Time 7:30  
 Total Time (min) 15

Volumes adjusted by Growth Factors, Anti PHF.

Run Number	1	2	3	4	5	6	7
Vehs Entered	1190	1230	1233	1121	1147	1192	1182
Vehs Exited	1109	1186	1195	1077	1141	1169	1180
Starting Vehs	125	142	158	174	157	151	186
Ending Vehs	206	186	196	218	163	174	188
Travel Distance (mi)	595	624	623	563	592	602	617
Travel Time (hr)	42.7	42.7	44.1	54.8	36.8	38.2	43.6
Total Delay (hr)	26.3	25.6	26.9	39.3	20.4	21.5	26.6
Total Stops	1098	1143	1077	955	969	993	1152
Fuel Used (gal)	27.6	28.8	29.0	29.1	26.3	27.2	29.1

Interval #1 Information Recording

Start Time 7:15  
 End Time 7:30  
 Total Time (min) 15

Volumes adjusted by Growth Factors, Anti PHF.

Run Number	8	9	10	Avg
Vehs Entered	1203	1151	1220	1184
Vehs Exited	1179	1103	1208	1155
Starting Vehs	169	149	198	161
Ending Vehs	193	197	210	189
Travel Distance (mi)	615	577	628	604
Travel Time (hr)	43.1	41.9	50.0	43.8
Total Delay (hr)	26.1	25.9	32.8	27.1
Total Stops	1083	1020	1179	1068
Fuel Used (gal)	28.7	27.3	31.0	28.4

# SimTraffic Simulation Summary

08/01/2022

## Interval #2 Information

Start Time 7:30  
 End Time 7:45  
 Total Time (min) 15  
 Volumes adjusted by PHF, Growth Factors.

Run Number	1	2	3	4	5	6	7
Vehs Entered	1222	1146	1150	1194	1180	1157	1170
Vehs Exited	1193	1160	1113	1173	1119	1180	1145
Starting Vehs	206	186	196	218	163	174	188
Ending Vehs	235	172	233	239	224	151	213
Travel Distance (mi)	639	597	579	618	594	599	598
Travel Time (hr)	50.0	42.5	47.3	55.2	51.2	36.5	45.3
Total Delay (hr)	32.5	25.8	31.3	38.1	34.9	19.9	28.8
Total Stops	1181	971	892	1041	1107	965	1130
Fuel Used (gal)	30.7	28.0	28.0	31.3	29.2	26.8	28.6

## Interval #2 Information

Start Time 7:30  
 End Time 7:45  
 Total Time (min) 15  
 Volumes adjusted by PHF, Growth Factors.

Run Number	8	9	10	Avg
Vehs Entered	1172	1244	1161	1179
Vehs Exited	1141	1143	1128	1148
Starting Vehs	193	197	210	189
Ending Vehs	224	298	243	220
Travel Distance (mi)	603	604	596	603
Travel Time (hr)	50.1	57.6	54.5	49.0
Total Delay (hr)	33.5	41.1	38.1	32.4
Total Stops	1196	1198	1157	1086
Fuel Used (gal)	30.0	31.4	31.3	29.5

**Interval #3 Information**

Start Time 7:45  
 End Time 8:00  
 Total Time (min) 15  
 Volumes adjusted by Growth Factors, Anti PHF.

Run Number	1	2	3	4	5	6	7
Vehs Entered	1166	1181	1141	1124	1121	1167	1219
Vehs Exited	1192	1114	1178	1129	1081	1128	1161
Starting Vehs	235	172	233	239	224	151	213
Ending Vehs	209	239	196	234	264	190	271
Travel Distance (mi)	619	583	612	603	566	597	620
Travel Time (hr)	53.3	49.7	52.3	55.7	65.6	44.1	52.9
Total Delay (hr)	36.3	33.7	35.6	39.0	50.1	27.6	35.9
Total Stops	1130	1070	925	1043	1093	1122	1123
Fuel Used (gal)	31.6	29.2	30.3	30.7	32.0	28.6	31.0

**Interval #3 Information**

Start Time 7:45  
 End Time 8:00  
 Total Time (min) 15  
 Volumes adjusted by Growth Factors, Anti PHF.

Run Number	8	9	10	Avg
Vehs Entered	1069	1156	1131	1150
Vehs Exited	1080	1222	1120	1137
Starting Vehs	224	298	243	220
Ending Vehs	213	232	254	227
Travel Distance (mi)	566	625	587	598
Travel Time (hr)	49.4	59.5	60.2	54.2
Total Delay (hr)	33.7	42.0	44.1	37.8
Total Stops	1052	1031	1132	1070
Fuel Used (gal)	28.7	32.6	31.8	30.7

**Interval #4 Information**

Start Time 8:00  
 End Time 8:15  
 Total Time (min) 15

Volumes adjusted by Growth Factors, Anti PHF.

Run Number	1	2	3	4	5	6	7
Vehs Entered	1234	1209	1189	1272	1179	1210	1127
Vehs Exited	1216	1220	1182	1242	1161	1179	1184
Starting Vehs	209	239	196	234	264	190	271
Ending Vehs	227	228	203	264	282	221	214
Travel Distance (mi)	631	635	616	643	605	617	605
Travel Time (hr)	50.4	63.0	57.9	59.1	84.3	47.6	59.9
Total Delay (hr)	32.9	45.6	41.0	41.3	67.6	30.6	43.3
Total Stops	1127	1254	1078	1137	1157	1098	1247
Fuel Used (gal)	30.9	34.1	31.3	32.4	37.5	29.8	32.5

**Interval #4 Information**

Start Time 8:00  
 End Time 8:15  
 Total Time (min) 15

Volumes adjusted by Growth Factors, Anti PHF.

Run Number	8	9	10	Avg
Vehs Entered	1135	1181	1223	1194
Vehs Exited	1155	1202	1223	1195
Starting Vehs	213	232	254	227
Ending Vehs	193	211	254	225
Travel Distance (mi)	590	620	645	621
Travel Time (hr)	46.4	62.4	70.0	60.1
Total Delay (hr)	30.0	45.4	52.3	43.0
Total Stops	999	1068	1247	1139
Fuel Used (gal)	28.8	33.2	35.6	32.6

100: WALTON VERONA RD/BEAVER RD & STEPHENSON MILL RD/MARY GRUBBS HWY (KY-14)

Movement	EBL	EBT	WBL	WBT	WBR	NBT	NBR	SBL	SBT	SBR	All
Denied Del/Veh (s)	0.1	0.2	0.5	1.2	0.6	48.6	43.0	0.0	0.0	0.0	13.3
Total Del/Veh (s)	131.4	134.3	29.8	30.2	37.1	280.8	331.3	116.8	111.8	91.9	142.7

101: I-75 SB ON RAMP/I-75 SB OFF RAMP & MARY GRUBBS HWY (KY-14) Performance by movement

Movement	EBT	EBR	WBL	WBT	SBL	SBR	All
Denied Del/Veh (s)	0.1	0.1	0.0	0.2	0.0	0.0	0.1
Total Del/Veh (s)	17.3	11.2	54.1	114.8	79.9	112.7	69.4

102: I-75 NB OFF RAMP/I-75 NB ON RAMP & MARY GRUBBS HWY (KY-14) Performance by movement

Movement	EBL	EBT	WBT	WBR	NBL	NBR	All
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Del/Veh (s)	28.9	10.9	44.4	37.8	85.0	41.1	31.2

200: BEAVER RD & CHURCH DRIVE (EX) Performance by movement

Movement	EBL	EBR	NWL	NWT	NWR	All
Denied Del/Veh (s)	0.3	0.3	0.0	0.0	0.0	0.1
Total Del/Veh (s)	3.7	1.6	0.9	1.6	0.4	1.4

201: BEAVER RD & SCHOOL DRIVE (PROP) Performance by movement

Movement	EBT	WBT	SBL	SBR	All
Denied Del/Veh (s)	0.0	0.0	0.1	0.2	0.0
Total Del/Veh (s)	0.1	0.7	6.0	4.6	1.4

Total Zone Performance

Denied Del/Veh (s)	19.4
Total Del/Veh (s)	2458.0

Queuing and Blocking Report

08/01/2022

Intersection: 100: WALTON VERONA RD/BEAVER RD & STEPHENSON MILL RD/MARY GRUBBS H

Movement	EB	WB	WB	NB	NB	SB	B8
Directions Served	LTR	LT	R	LT	R	LTR	T
Maximum Queue (ft)	316	129	116	186	1456	325	344
Average Queue (ft)	139	105	102	13	1142	247	89
95th Queue (ft)	282	130	129	93	1869	361	305
Link Distance (ft)	1681	106	106		1545	216	795
Upstream Blk Time (%)		50	47		24	41	
Queuing Penalty (veh)		139	131		0	0	
Storage Bay Dist (ft)				110			
Storage Blk Time (%)					76		
Queuing Penalty (veh)					12		

Intersection: 101: I-75 SB ON RAMP/I-75 SB OFF RAMP & MARY GRUBBS HWY (KY-14)

Movement	EB	EB	WB	WB	WB	SB	SB	B20	B20
Directions Served	T	TR	L	T	T	L	R	T	T
Maximum Queue (ft)	136	126	225	544	403	716	574	24	21
Average Queue (ft)	85	76	71	247	187	437	326	1	2
95th Queue (ft)	150	142	188	527	402	685	605	17	30
Link Distance (ft)	106	106		532	532	748	748	194	194
Upstream Blk Time (%)	20	13		8	1	1	2		0
Queuing Penalty (veh)	58	38		19	3	0	0		0
Storage Bay Dist (ft)			110						
Storage Blk Time (%)			3	47					
Queuing Penalty (veh)			5	49					

Intersection: 102: I-75 NB OFF RAMP/I-75 NB ON RAMP & MARY GRUBBS HWY (KY-14)

Movement	EB	EB	EB	WB	WB	B3	B3	NB	NB	B16
Directions Served	L	T	T	T	TR	T	T	L	R	T
Maximum Queue (ft)	248	217	219	270	311	939	955	220	248	11
Average Queue (ft)	124	95	100	145	274	536	648	93	136	0
95th Queue (ft)	214	205	219	272	321	1237	1222	281	216	11
Link Distance (ft)		532	532	198	198	1003	1003	576	576	276
Upstream Blk Time (%)				12	61	15	21	2		
Queuing Penalty (veh)				0	0	0	0	0		
Storage Bay Dist (ft)	110									
Storage Blk Time (%)	16	6								
Queuing Penalty (veh)	56	12								

Intersection: 200: BEAVER RD & CHURCH DRIVE (EX)

Movement	EB	NW
Directions Served	LR	LR
Maximum Queue (ft)	84	48
Average Queue (ft)	18	10
95th Queue (ft)	53	34
Link Distance (ft)	634	173
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 201: BEAVER RD & SCHOOL DRIVE (PROP)

Movement	SB
Directions Served	LR
Maximum Queue (ft)	72
Average Queue (ft)	37
95th Queue (ft)	61
Link Distance (ft)	199
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Zone Summary

Zone wide Queuing Penalty: 521

Intersection: 100: WALTON VERONA RD/BEAVER RD & STEPHENSON MILL RD/MARY GRUBBS H

Phase	1	7	8	9
Movement(s) Served	NBTL	WBTL	SBTL	EBTL
Maximum Green (s)	64.0	81.0	25.0	13.5
Minimum Green (s)	6.0	6.0	6.0	6.0
Recall	None	None	None	None
Avg. Green (s)	69.8	76.3	32.6	16.5
g/C Ratio	NA	NA	NA	NA
Cycles Skipped (%)	0	0	0	0
Cycles @ Minimum (%)	0	0	0	0
Cycles Maxed Out (%)	87	67	67	60
Cycles with Peds (%)	0	0	0	0

**Controller Summary**

Average Cycle Length (s): NA  
 Number of Complete Cycles : 0

Intersection: 101: I-75 SB ON RAMP/I-75 SB OFF RAMP & MARY GRUBBS HWY (KY-14)

Phase	1	2	6	8
Movement(s) Served	WBL	EBT	WBTL	SBL
Maximum Green (s)	13.5	118.5	138.5	65.0
Minimum Green (s)	6.0	6.0	30.0	8.0
Recall	None	C-Max	C-Max	None
Avg. Green (s)	11.1	131.8	138.9	64.6
g/C Ratio	-0.01	NA	NA	NA
Cycles Skipped (%)	36	0	0	0
Cycles @ Minimum (%)	0	0	0	0
Cycles Maxed Out (%)	14	100	100	93
Cycles with Peds (%)	0	0	0	0

**Controller Summary**

Average Cycle Length (s): NA  
 Number of Complete Cycles : 0

Intersection: 102: I-75 NB OFF RAMP/I-75 NB ON RAMP & MARY GRUBBS HWY (KY-14)

Phase	1	3	4	8
Movement(s) Served	NBL	EBL	WBT	EBTL
Maximum Green (s)	23.0	23.5	43.3	73.3
Minimum Green (s)	8.0	8.0	30.0	30.0
Recall	None	C-Max	None	C-Max
Avg. Green (s)	20.8	26.4	43.3	77.6
g/C Ratio	NA	NA	NA	NA
Cycles Skipped (%)	0	0	0	0
Cycles @ Minimum (%)	0	0	0	0
Cycles Maxed Out (%)	53	100	100	100
Cycles with Peds (%)	0	0	0	0

**Controller Summary**

Average Cycle Length (s): NA  
 Number of Complete Cycles : 0

100: WALTON VERONA RD/BEAVER RD & STEPHENSON MILL RD/MARY GRUBBS HWY (KY-14) I

Approach	EB	WB	NB	SB	All
Denied Del/Veh (s)	0.2	0.6	43.2	0.0	13.3
Total Del/Veh (s)	133.9	33.5	329.0	114.6	142.7

101: I-75 SB ON RAMP/I-75 SB OFF RAMP & MARY GRUBBS HWY (KY-14) Performance by approach

Approach	EB	WB	SB	All
Denied Del/Veh (s)	0.1	0.1	0.0	0.1
Total Del/Veh (s)	16.5	100.3	91.2	69.4

102: I-75 NB OFF RAMP/I-75 NB ON RAMP & MARY GRUBBS HWY (KY-14) Performance by approach

Approach	EB	WB	NB	All
Denied Del/Veh (s)	0.0	0.0	0.0	0.0
Total Del/Veh (s)	14.7	40.2	53.4	31.2

200: BEAVER RD & CHURCH DRIVE (EX) Performance by approach

Approach	EB	NW	All
Denied Del/Veh (s)	0.3	0.0	0.1
Total Del/Veh (s)	2.4	0.7	1.4

201: BEAVER RD & SCHOOL DRIVE (PROP) Performance by approach

Approach	EB	WB	SB	All
Denied Del/Veh (s)	0.0	0.0	0.2	0.0
Total Del/Veh (s)	0.1	0.7	4.9	1.4

Total Zone Performance

Denied Del/Veh (s)	19.4
Total Del/Veh (s)	2458.0

Summary of All Intervals

Run Number	1	2	3	4	5	6	7
Start Time	4:35	4:35	4:35	4:35	4:35	4:35	4:35
End Time	5:45	5:45	5:45	5:45	5:45	5:45	5:45
Total Time (min)	70	70	70	70	70	70	70
Time Recorded (min)	60	60	60	60	60	60	60
# of Intervals	5	5	5	5	5	5	5
# of Recorded Intervals	4	4	4	4	4	4	4
Vehs Entered	4517	4342	4364	4184	4213	4475	4531
Vehs Exited	4415	4239	4299	4120	4126	4376	4489
Starting Vehs	159	140	143	155	122	139	159
Ending Vehs	261	243	208	219	209	238	201
Travel Distance (mi)	2358	2291	2287	2224	2226	2333	2383
Travel Time (hr)	203.9	305.5	256.2	298.0	213.2	199.6	173.6
Total Delay (hr)	139.8	243.2	194.1	237.5	152.7	136.2	108.4
Total Stops	4663	4740	4242	4292	4172	4390	4426
Fuel Used (gal)	117.9	138.5	127.3	134.0	115.5	115.8	111.8

Summary of All Intervals

Run Number	8	9	10	Avg
Start Time	4:35	4:35	4:35	4:35
End Time	5:45	5:45	5:45	5:45
Total Time (min)	70	70	70	70
Time Recorded (min)	60	60	60	60
# of Intervals	5	5	5	5
# of Recorded Intervals	4	4	4	4
Vehs Entered	4288	4256	4158	4334
Vehs Exited	4206	4164	4050	4249
Starting Vehs	152	138	130	136
Ending Vehs	234	230	238	225
Travel Distance (mi)	2245	2247	2198	2279
Travel Time (hr)	327.6	248.4	301.9	252.8
Total Delay (hr)	266.5	187.3	242.3	190.8
Total Stops	4525	4330	4175	4397
Fuel Used (gal)	142.7	124.1	134.1	126.2

Interval #0 Information Seeding

Start Time 4:35  
 End Time 4:45  
 Total Time (min) 10  
 Volumes adjusted by Growth Factors, Anti PHF.  
 No data recorded this interval.

# SimTraffic Simulation Summary

08/01/2022

## Interval #1 Information Recording

Start Time 4:45  
 End Time 5:00  
 Total Time (min) 15  
 Volumes adjusted by Growth Factors, Anti PHF.

Run Number	1	2	3	4	5	6	7
Vehs Entered	1130	1162	1113	1094	1035	1079	1178
Vehs Exited	1141	1094	1087	1063	1006	1095	1188
Starting Vehs	159	140	143	155	122	139	159
Ending Vehs	148	208	169	186	151	123	149
Travel Distance (mi)	595	596	578	582	538	569	637
Travel Time (hr)	44.5	50.1	41.4	45.3	35.0	33.5	44.5
Total Delay (hr)	28.4	33.9	25.8	29.5	20.4	18.0	27.1
Total Stops	979	1182	1021	1157	821	960	1105
Fuel Used (gal)	28.1	29.5	26.7	27.7	24.1	24.9	29.3

## Interval #1 Information Recording

Start Time 4:45  
 End Time 5:00  
 Total Time (min) 15  
 Volumes adjusted by Growth Factors, Anti PHF.

Run Number	8	9	10	Avg
Vehs Entered	1120	1098	1145	1113
Vehs Exited	1056	1087	1078	1086
Starting Vehs	152	138	130	136
Ending Vehs	216	149	197	164
Travel Distance (mi)	568	587	585	584
Travel Time (hr)	48.6	40.3	40.8	42.4
Total Delay (hr)	33.1	24.2	25.0	26.5
Total Stops	1110	1036	1107	1049
Fuel Used (gal)	28.0	26.7	26.5	27.2

**Interval #2 Information**

Start Time 5:00  
 End Time 5:15  
 Total Time (min) 15

Volumes adjusted by PHF, Growth Factors.

Run Number	1	2	3	4	5	6	7
Vehs Entered	1143	1026	1152	1045	1145	1139	1097
Vehs Exited	1108	1042	1093	1026	1089	1107	1082
Starting Vehs	148	208	169	186	151	123	149
Ending Vehs	183	192	228	205	207	155	164
Travel Distance (mi)	597	551	585	549	602	592	577
Travel Time (hr)	50.8	61.1	50.1	58.5	52.3	37.2	40.6
Total Delay (hr)	34.6	46.1	34.1	41.6	35.9	21.1	24.8
Total Stops	1112	1033	1111	1087	1077	1033	1084
Fuel Used (gal)	29.4	30.4	29.1	29.3	29.8	26.1	26.9

**Interval #2 Information**

Start Time 5:00  
 End Time 5:15  
 Total Time (min) 15

Volumes adjusted by PHF, Growth Factors.

Run Number	8	9	10	Avg
Vehs Entered	1059	1084	1020	1092
Vehs Exited	1052	1005	997	1061
Starting Vehs	216	149	197	164
Ending Vehs	223	228	220	195
Travel Distance (mi)	555	552	543	570
Travel Time (hr)	74.1	51.5	62.8	53.7
Total Delay (hr)	59.0	36.6	48.0	38.2
Total Stops	1218	1145	1133	1103
Fuel Used (gal)	33.7	28.2	30.6	29.4

**Interval #3 Information**

Start Time 5:15  
 End Time 5:30  
 Total Time (min) 15  
 Volumes adjusted by Growth Factors, Anti PHF.

Run Number	1	2	3	4	5	6	7
Vehs Entered	1078	1045	1096	1039	1056	1155	1137
Vehs Exited	1087	1009	1110	1002	1025	1080	1133
Starting Vehs	183	192	228	205	207	155	164
Ending Vehs	174	228	214	242	238	230	168
Travel Distance (mi)	577	551	585	545	545	587	594
Travel Time (hr)	48.2	66.2	69.9	83.4	54.4	50.7	42.7
Total Delay (hr)	32.4	71.2	54.0	68.7	39.6	34.8	26.4
Total Stops	1165	1214	1165	1083	1180	1173	1135
Fuel Used (gal)	28.5	36.1	33.9	35.2	29.3	29.4	27.6

**Interval #3 Information**

Start Time 5:15  
 End Time 5:30  
 Total Time (min) 15  
 Volumes adjusted by Growth Factors, Anti PHF.

Run Number	8	9	10	Avg
Vehs Entered	1051	1052	994	1070
Vehs Exited	1041	1056	1008	1056
Starting Vehs	223	228	220	195
Ending Vehs	233	224	206	207
Travel Distance (mi)	557	558	543	564
Travel Time (hr)	89.7	68.9	81.3	67.5
Total Delay (hr)	74.7	53.7	66.6	52.2
Total Stops	1032	1128	981	1126
Fuel Used (gal)	37.7	32.7	34.7	32.5

**Interval #4 Information**

Start Time 5:30  
 End Time 5:45  
 Total Time (min) 15  
 Volumes adjusted by Growth Factors, Anti PHF.

Run Number	1	2	3	4	5	6	7
Vehs Entered	1166	1109	1003	1006	977	1102	1119
Vehs Exited	1079	1094	1009	1029	1006	1094	1086
Starting Vehs	174	228	214	242	238	230	168
Ending Vehs	261	243	208	219	209	238	201
Travel Distance (mi)	589	593	539	548	541	585	575
Travel Time (hr)	60.4	108.1	94.8	112.7	71.5	78.3	45.8
Total Delay (hr)	44.4	92.0	80.2	97.8	56.8	62.4	30.1
Total Stops	1407	1311	945	965	1094	1224	1102
Fuel Used (gal)	31.8	42.6	37.5	41.8	32.4	35.5	28.0

**Interval #4 Information**

Start Time 5:30  
 End Time 5:45  
 Total Time (min) 15  
 Volumes adjusted by Growth Factors, Anti PHF.

Run Number	8	9	10	Avg
Vehs Entered	1058	1022	999	1056
Vehs Exited	1057	1016	967	1044
Starting Vehs	233	224	206	207
Ending Vehs	234	230	238	225
Travel Distance (mi)	565	549	527	561
Travel Time (hr)	115.2	87.7	116.9	89.1
Total Delay (hr)	99.8	72.8	102.6	73.9
Total Stops	1165	1021	954	1118
Fuel Used (gal)	43.3	36.4	42.2	37.1

100: WALTON VERONA RD/BEAVER RD & STEPHENSON MILL RD/MARY GRUBBS HWY (KY-14)

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBT	NBR	SBL	SBT	SBR	All
Denied Del/Veh (s)	0.2	0.2	0.1	0.5	0.5	0.6	3.9	1.1	0.0	0.0	0.0	0.6
Total Del/Veh (s)	105.2	98.4	59.7	29.1	34.0	48.8	126.6	139.0	83.2	96.4	59.7	78.2

101: I-75 SB ON RAMP/I-75 SB OFF RAMP & MARY GRUBBS HWY (KY-14) Performance by movement

Movement	EBT	EBR	WBL	WBT	SBL	SBR	All
Denied Del/Veh (s)	0.0	0.0	4.2	11.3	0.0	0.0	2.0
Total Del/Veh (s)	11.6	7.8	145.4	205.2	114.8	88.2	95.8

102: I-75 NB OFF RAMP/I-75 NB ON RAMP & MARY GRUBBS HWY (KY-14) Performance by movement

Movement	EBL	EBT	WBT	WBR	NBL	NBR	All
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Del/Veh (s)	26.7	12.8	106.7	27.5	251.0	39.9	43.7

200: BEAVER RD & CHURCH DRIVE (EX) Performance by movement

Movement	EBL	EBR	NWL	NWR	SWL	SWR	All
Denied Del/Veh (s)	0.2	0.2	0.0	0.0	0.1	0.1	0.1
Total Del/Veh (s)	1.4	0.8	0.2	0.0	5.8	3.3	0.7

201: BEAVER RD & SCHOOL DRIVE (PROP) Performance by movement

Movement	EBT	WBT	All
Denied Del/Veh (s)	0.0	0.0	0.0
Total Del/Veh (s)	0.0	0.2	0.1

Total Zone Performance

Denied Del/Veh (s)	7.1
Total Del/Veh (s)	2649.3

Intersection: 100: WALTON VERONA RD/BEAVER RD & STEPHENSON MILL RD/MARY GRUBBS HWY

Movement	EB	WB	WB	NB	NB	SB	B6
Directions Served	LTR	LT	R	LT	R	LTR	T
Maximum Queue (ft)	207	136	116	130	824	306	171
Average Queue (ft)	89	108	85	13	449	204	19
95th Queue (ft)	171	136	138	90	973	321	102
Link Distance (ft)	1681	106	106		1545	216	795
Upstream Blk Time (%)		56	30		1	18	
Queuing Penalty (veh)		144	77		0	0	
Storage Bay Dist (ft)				110			
Storage Blk Time (%)					61		
Queuing Penalty (veh)					5		

Intersection: 101: I-75 SB ON RAMP/I-75 SB OFF RAMP & MARY GRUBBS HWY (KY-14)

Movement	EB	EB	WB	WB	WB	SB	SB	B20	B20	B22	B22
Directions Served	T	TR	L	T	T	L	R	T	T	T	T
Maximum Queue (ft)	135	123	225	558	232	829	663	162	106	85	74
Average Queue (ft)	74	58	149	510	77	639	304	39	11	15	12
95th Queue (ft)	149	130	304	685	197	918	610	168	89	155	142
Link Distance (ft)	106	106		532	532	748	748	194	194	650	650
Upstream Blk Time (%)	11	6		57		15	1	4	1	0	0
Queuing Penalty (veh)	26	13		148		0	0	0	0	0	0
Storage Bay Dist (ft)			110								
Storage Blk Time (%)			15	81							
Queuing Penalty (veh)			23	173							

Intersection: 102: I-75 NB OFF RAMP/I-75 NB ON RAMP & MARY GRUBBS HWY (KY-14)

Movement	EB	EB	EB	WB	WB	B3	B3	NB	NB	B16
Directions Served	L	T	T	T	TR	T	T	L	R	T
Maximum Queue (ft)	246	254	224	299	301	1008	1002	456	276	9
Average Queue (ft)	111	120	130	254	219	612	589	196	125	1
95th Queue (ft)	222	241	252	324	359	1316	1304	445	229	14
Link Distance (ft)		532	532	198	198	1003	1003	576	576	276
Upstream Blk Time (%)				74	29	39	31	2		
Queuing Penalty (veh)				0	0	0	0	0		
Storage Bay Dist (ft)	110									
Storage Blk Time (%)	14	7								
Queuing Penalty (veh)	53	14								

Intersection: 200: BEAVER RD & CHURCH DRIVE (EX)

Movement	EB	NW	SW
Directions Served	LR	LR	LR
Maximum Queue (ft)	9	13	30
Average Queue (ft)	0	0	7
95th Queue (ft)	6	6	28
Link Distance (ft)	634	173	178
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 201: BEAVER RD & SCHOOL DRIVE (PROP)

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Zone Summary

Zone wide Queuing Penalty: 677

Intersection: 100: WALTON VERONA RD/BEAVER RD & STEPHENSON MILL RD/MARY GRUBBS F

Phase	1	7	8	9
Movement(s) Served	NBTL	WBTL	SBTL	EBTL
Maximum Green (s)	54.0	81.0	35.0	13.5
Minimum Green (s)	6.0	6.0	6.0	6.0
Recall	None	None	None	None
Avg. Green (s)	53.7	73.5	43.1	18.3
g/C Ratio	-0.01	NA	NA	NA
Cycles Skipped (%)	12	0	0	0
Cycles @ Minimum (%)	0	0	0	0
Cycles Maxed Out (%)	24	20	13	7
Cycles with Peds (%)	0	0	0	0

**Controller Summary**

Average Cycle Length (s): NA  
 Number of Complete Cycles : 0

Intersection: 101: I-75 SB ON RAMP/I-75 SB OFF RAMP & MARY GRUBBS HWY (KY-14)

Phase	1	2	6	8
Movement(s) Served	WBL	EBT	WBTL	SBL
Maximum Green (s)	13.5	113.5	133.5	70.0
Minimum Green (s)	6.0	6.0	30.0	8.0
Recall	None	C-Max	C-Max	None
Avg. Green (s)	13.1	125.4	133.8	69.8
g/C Ratio	-0.01	NA	NA	NA
Cycles Skipped (%)	46	0	0	0
Cycles @ Minimum (%)	0	0	0	0
Cycles Maxed Out (%)	38	100	100	94
Cycles with Peds (%)	0	0	0	0

**Controller Summary**

Average Cycle Length (s): NA  
 Number of Complete Cycles : 0

Intersection: 102: I-75 NB OFF RAMP/I-75 NB ON RAMP & MARY GRUBBS HWY (KY-14)

Phase	1	3	4	8
Movement(s) Served	NBL	EBL	WBT	EBTL
Maximum Green (s)	23.0	23.5	43.3	73.3
Minimum Green (s)	8.0	8.0	30.0	30.0
Recall	None	C-Max	None	C-Max
Avg. Green (s)	21.9	25.0	43.3	75.8
g/C Ratio	NA	NA	NA	NA
Cycles Skipped (%)	0	0	0	0
Cycles @ Minimum (%)	0	0	0	0
Cycles Maxed Out (%)	78	100	100	100
Cycles with Peds (%)	0	0	0	0

**Controller Summary**

Average Cycle Length (s): NA  
 Number of Complete Cycles : 0

100: WALTON VERONA RD/BEAVER RD & STEPHENSON MILL RD/MARY GRUBBS HWY (KY-14)

Approach	EB	WB	NB	SB	All
Denied Del/Veh (s)	0.2	0.5	1.2	0.0	0.6
Total Del/Veh (s)	96.7	35.6	138.6	81.9	78.2

101: I-75 SB ON RAMP/I-75 SB OFF RAMP & MARY GRUBBS HWY (KY-14) Performance by approach

Approach	EB	WB	SB	All
Denied Del/Veh (s)	0.0	8.5	0.0	2.0
Total Del/Veh (s)	10.9	182.3	107.1	95.8

102: I-75 NB OFF RAMP/I-75 NB ON RAMP & MARY GRUBBS HWY (KY-14) Performance by approach

Approach	EB	WB	NB	All
Denied Del/Veh (s)	0.0	0.0	0.0	0.0
Total Del/Veh (s)	15.7	61.0	92.3	43.7

200: BEAVER RD & CHURCH DRIVE (EX) Performance by approach

Approach	EB	NW	SW	All
Denied Del/Veh (s)	0.2	0.0	0.1	0.1
Total Del/Veh (s)	0.9	0.2	4.3	0.7

201: BEAVER RD & SCHOOL DRIVE (PROP) Performance by approach

Approach	EB	WB	All
Denied Del/Veh (s)	0.0	0.0	0.0
Total Del/Veh (s)	0.0	0.2	0.1

Total Zone Performance

Denied Del/Veh (s)	7.1
Total Del/Veh (s)	2649.3

Summary of All Intervals

Run Number	1	2	3	4	5	6	7
Start Time	4:35	4:35	4:35	4:35	4:35	4:35	4:35
End Time	5:45	5:45	5:45	5:45	5:45	5:45	5:45
Total Time (min)	70	70	70	70	70	70	70
Time Recorded (min)	60	60	60	60	60	60	60
# of Intervals	5	5	5	5	5	5	5
# of Recorded Intervals	4	4	4	4	4	4	4
Vehs Entered	4334	4643	4627	4535	4169	4565	4652
Vehs Exited	4322	4631	4540	4417	4096	4486	4529
Starting Vehs	169	198	134	119	178	135	162
Ending Vehs	181	210	221	237	251	214	285
Travel Distance (mi)	2292	2459	2425	2369	2189	2386	2421
Travel Time (hr)	225.1	276.5	178.0	190.3	352.2	156.5	298.9
Total Delay (hr)	162.6	209.4	111.8	125.8	292.7	91.4	232.7
Total Stops	4559	5596	4355	4466	4675	4212	5253
Fuel Used (gal)	120.7	138.6	112.9	114.4	146.4	106.8	141.4

Summary of All Intervals

Run Number	8	9	10	Avg
Start Time	4:35	4:35	4:35	4:35
End Time	5:45	5:45	5:45	5:45
Total Time (min)	70	70	70	70
Time Recorded (min)	60	60	60	60
# of Intervals	5	5	5	5
# of Recorded Intervals	4	4	4	4
Vehs Entered	4337	4308	4528	4469
Vehs Exited	4269	4233	4425	4395
Starting Vehs	195	144	147	150
Ending Vehs	263	219	250	228
Travel Distance (mi)	2272	2281	2349	2344
Travel Time (hr)	361.2	325.8	225.2	259.0
Total Delay (hr)	299.3	263.6	161.0	195.0
Total Stops	5267	4220	4862	4745
Fuel Used (gal)	151.7	142.7	122.3	129.8

Interval #0 Information Seeding

Start Time 4:35  
 End Time 4:45  
 Total Time (min) 10  
 Volumes adjusted by Growth Factors, Anti PHF.  
 No data recorded this interval.

**Interval #1 Information Recording**

Start Time 4:45  
 End Time 5:00  
 Total Time (min) 15

Volumes adjusted by Growth Factors, Anti PHF.

Run Number	1	2	3	4	5	6	7
Vehs Entered	1099	1154	1173	1164	1101	1162	1120
Vehs Exited	1106	1110	1164	1124	1055	1140	1067
Starting Vehs	169	198	134	119	178	135	162
Ending Vehs	162	242	143	159	224	157	215
Travel Distance (mi)	588	599	625	598	561	608	572
Travel Time (hr)	40.8	57.9	39.6	36.8	57.1	36.3	52.1
Total Delay (hr)	24.8	41.6	22.5	20.5	41.8	19.6	36.5
Total Stops	1093	1333	1057	1015	1162	1021	1056
Fuel Used (gal)	27.2	31.4	27.8	26.4	30.0	26.3	29.3

**Interval #1 Information Recording**

Start Time 4:45  
 End Time 5:00  
 Total Time (min) 15

Volumes adjusted by Growth Factors, Anti PHF.

Run Number	8	9	10	Avg
Vehs Entered	1114	1115	1152	1137
Vehs Exited	1086	1038	1127	1102
Starting Vehs	195	144	147	150
Ending Vehs	223	221	172	185
Travel Distance (mi)	581	563	603	590
Travel Time (hr)	66.1	40.3	41.0	46.8
Total Delay (hr)	50.3	25.0	24.7	30.7
Total Stops	1348	962	1170	1123
Fuel Used (gal)	32.6	25.7	27.6	28.4

# SimTraffic Simulation Summary

08/01/2022

## Interval #2 Information

Start Time 5:00  
 End Time 5:15  
 Total Time (min) 15  
 Volumes adjusted by PHF, Growth Factors.

Run Number	1	2	3	4	5	6	7
Vehs Entered	1184	1087	1175	1107	1099	1106	1144
Vehs Exited	1117	1093	1200	1134	1071	1118	1111
Starting Vehs	162	242	143	159	224	157	215
Ending Vehs	229	236	118	132	252	145	248
Travel Distance (mi)	601	576	629	598	570	587	594
Travel Time (hr)	44.2	77.8	37.3	40.8	70.3	33.8	79.1
Total Delay (hr)	27.9	61.9	20.1	24.4	54.8	17.8	62.9
Total Stops	1140	1419	1013	1169	1389	940	1453
Fuel Used (gal)	27.9	35.6	27.2	27.5	33.4	25.4	36.2

## Interval #2 Information

Start Time 5:00  
 End Time 5:15  
 Total Time (min) 15  
 Volumes adjusted by PHF, Growth Factors.

Run Number	8	9	10	Avg
Vehs Entered	964	1067	1150	1107
Vehs Exited	977	1076	1138	1103
Starting Vehs	223	221	172	185
Ending Vehs	210	212	184	188
Travel Distance (mi)	520	576	609	586
Travel Time (hr)	87.4	73.5	48.3	59.2
Total Delay (hr)	73.2	57.9	31.6	43.2
Total Stops	1082	1054	1178	1180
Fuel Used (gal)	35.7	34.2	29.5	31.3

**Interval #3 Information**

Start Time 5:15  
 End Time 5:30  
 Total Time (min) 15

Volumes adjusted by Growth Factors, Anti PHF.

Run Number	1	2	3	4	5	6	7
Vehs Entered	1038	1185	1155	1117	1040	1153	1208
Vehs Exited	1012	1188	1102	1029	1042	1135	1184
Starting Vehs	229	236	118	132	252	145	248
Ending Vehs	255	233	171	220	250	163	272
Travel Distance (mi)	540	636	586	568	554	607	627
Travel Time (hr)	62.4	74.5	40.0	44.4	97.1	41.2	87.4
Total Delay (hr)	47.7	57.3	24.0	29.1	82.0	24.6	70.1
Total Stops	1313	1429	1110	994	1221	1061	1385
Fuel Used (gal)	30.7	36.7	26.7	26.7	39.2	27.4	38.6

**Interval #3 Information**

Start Time 5:15  
 End Time 5:30  
 Total Time (min) 15

Volumes adjusted by Growth Factors, Anti PHF.

Run Number	8	9	10	Avg
Vehs Entered	1121	1040	1083	1113
Vehs Exited	1095	1056	1025	1085
Starting Vehs	210	212	184	188
Ending Vehs	236	196	242	219
Travel Distance (mi)	583	569	543	581
Travel Time (hr)	101.3	95.1	57.7	70.1
Total Delay (hr)	85.4	79.6	42.8	54.3
Total Stops	1431	1098	1131	1213
Fuel Used (gal)	41.0	38.9	29.5	33.5

**Interval #4 Information**

Start Time	5:30
End Time	5:45
Total Time (min)	15

Volumes adjusted by Growth Factors, Anti PHF.

Run Number	1	2	3	4	5	6	7
Vehs Entered	1013	1217	1124	1147	929	1144	1180
Vehs Exited	1087	1240	1074	1130	928	1093	1167
Starting Vehs	255	233	171	220	250	163	272
Ending Vehs	181	210	221	237	251	214	285
Travel Distance (mi)	563	648	585	605	504	584	629
Travel Time (hr)	77.7	66.3	61.1	68.3	127.7	45.1	80.3
Total Delay (hr)	62.3	48.6	45.2	51.8	114.1	29.4	63.1
Total Stops	1013	1415	1175	1288	903	1190	1359
Fuel Used (gal)	34.9	34.9	31.2	33.7	43.9	27.7	37.4

**Interval #4 Information**

Start Time	5:30
End Time	5:45
Total Time (min)	15

Volumes adjusted by Growth Factors, Anti PHF.

Run Number	8	9	10	Avg
Vehs Entered	1138	1086	1143	1114
Vehs Exited	1111	1063	1135	1102
Starting Vehs	236	196	242	219
Ending Vehs	263	219	250	228
Travel Distance (mi)	588	574	594	587
Travel Time (hr)	106.4	116.8	78.3	82.8
Total Delay (hr)	90.4	101.1	62.0	66.8
Total Stops	1406	1106	1383	1224
Fuel Used (gal)	42.5	44.0	35.7	36.6

100: WALTON VERONA RD/BEAVER RD & STEPHENSON MILL RD/MARY GRUBBS HWY (KY-14)

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBT	NBR	SBL	SBT	SBR	All
Denied Del/Veh (s)	0.2	0.2	0.3	0.5	0.2	0.3	3.6	0.3	0.0	0.0	0.0	0.3
Total Del/Veh (s)	99.7	96.5	61.5	28.2	29.9	44.8	89.0	108.8	92.1	90.2	71.6	69.4

101: I-75 SB ON RAMP/I-75 SB OFF RAMP & MARY GRUBBS HWY (KY-14) Performance by movement

Movement	EBT	EBR	WBL	WBT	SBL	SBR	All
Denied Del/Veh (s)	0.0	0.0	0.8	3.2	0.0	0.0	0.6
Total Del/Veh (s)	13.0	9.2	131.3	178.2	137.2	81.2	99.6

102: I-75 NB OFF RAMP/I-75 NB ON RAMP & MARY GRUBBS HWY (KY-14) Performance by movement

Movement	EBL	EBT	WBT	WBR	NBL	NBR	All
Denied Del/Veh (s)	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Total Del/Veh (s)	27.3	12.6	92.2	30.3	262.5	38.1	42.6

200: BEAVER RD & CHURCH DRIVE (EX) Performance by movement

Movement	EBR	NWL	All
Denied Del/Veh (s)	0.2	0.0	0.1
Total Del/Veh (s)	0.8	0.2	0.5

201: BEAVER RD & SCHOOL DRIVE (PROP) Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.1	0.1	0.0
Total Del/Veh (s)	2.2	0.1	0.4	0.0	4.9	3.1	0.6

Total Zone Performance

Denied Del/Veh (s)	2.3
Total Del/Veh (s)	2445.0

Queuing and Blocking Report

08/01/2022

Intersection: 100: WALTON VERONA RD/BEAVER RD & STEPHENSON MILL RD/MARY GRUBBS H

Movement	EB	WB	WB	NB	NB	SB	B8
Directions Served	LTR	LT	R	LT	R	LTR	T
Maximum Queue (ft)	203	122	124	211	752	308	187
Average Queue (ft)	87	107	90	13	380	220	27
95th Queue (ft)	173	133	141	90	676	328	131
Link Distance (ft)	1681	106	106		1545	216	795
Upstream Blk Time (%)		55	34			24	
Queuing Penalty (veh)		145	90			0	
Storage Bay Dist (ft)				110			
Storage Blk Time (%)					61		
Queuing Penalty (veh)					6		

Intersection: 101: I-75 SB ON RAMP/I-75 SB OFF RAMP & MARY GRUBBS HWY (KY-14)

Movement	EB	EB	WB	WB	WB	SB	SB	B20	B20	B22	B22
Directions Served	T	TR	L	T	T	L	R	T	T	T	T
Maximum Queue (ft)	123	122	225	559	250	827	700	221	152	143	104
Average Queue (ft)	71	62	148	497	97	715	322	92	21	26	11
95th Queue (ft)	144	132	304	681	215	965	639	273	116	146	97
Link Distance (ft)	106	106		532	532	748	748	194	194	650	650
Upstream Blk Time (%)	11	6		52		29	2	11	1		
Queuing Penalty (veh)	28	16		137		0	0	0	0		
Storage Bay Dist (ft)			110								
Storage Blk Time (%)			15	80							
Queuing Penalty (veh)			23	171							

Intersection: 102: I-75 NB OFF RAMP/I-75 NB ON RAMP & MARY GRUBBS HWY (KY-14)

Movement	EB	EB	EB	WB	WB	B3	B3	NB	NB	B16
Directions Served	L	T	T	T	TR	T	T	L	R	T
Maximum Queue (ft)	240	226	234	299	305	994	987	460	246	21
Average Queue (ft)	114	116	131	252	231	663	668	197	116	2
95th Queue (ft)	225	230	252	328	362	1381	1370	472	206	24
Link Distance (ft)		532	532	198	198	1003	1003	576	576	276
Upstream Blk Time (%)				69	37	40	40	4		
Queuing Penalty (veh)				0	0	0	0	0		
Storage Bay Dist (ft)	110									
Storage Blk Time (%)	15	7								
Queuing Penalty (veh)	55	14								

Intersection: 200: BEAVER RD & CHURCH DRIVE (EX)

**Movement**

Directions Served  
 Maximum Queue (ft)  
 Average Queue (ft)  
 95th Queue (ft)  
 Link Distance (ft)  
 Upstream Blk Time (%)  
 Queuing Penalty (veh)  
 Storage Bay Dist (ft)  
 Storage Blk Time (%)  
 Queuing Penalty (veh)

Intersection: 201: BEAVER RD & SCHOOL DRIVE (PROP)

**Movement**

**EB SB**

Directions Served	LT	LR
Maximum Queue (ft)	30	40
Average Queue (ft)	2	21
95th Queue (ft)	14	45
Link Distance (ft)	126	199
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

**Zone Summary**

Zone wide Queuing Penalty: 684

Intersection: 100: WALTON VERONA RD/BEAVER RD & STEPHENSON MILL RD/MARY GRUBBS H

Phase	1	7	8	9
Movement(s) Served	NBTL	WBTL	SBTL	EBTL
Maximum Green (s)	54.0	91.0	25.0	13.5
Minimum Green (s)	6.0	6.0	6.0	6.0
Recall	None	None	None	None
Avg. Green (s)	52.2	74.4	45.1	16.3
g/C Ratio	-0.01	NA	NA	NA
Cycles Skipped (%)	12	0	0	0
Cycles @ Minimum (%)	0	0	0	0
Cycles Maxed Out (%)	18	20	27	13
Cycles with Peds (%)	0	0	0	0

**Controller Summary**

Average Cycle Length (s): NA  
 Number of Complete Cycles : 0

Intersection: 101: I-75 SB ON RAMP/I-75 SB OFF RAMP & MARY GRUBBS HWY (KY-14)

Phase	1	2	6	8
Movement(s) Served	WBL	EBT	WBTL	SBL
Maximum Green (s)	13.5	113.5	133.5	70.0
Minimum Green (s)	6.0	6.0	30.0	8.0
Recall	None	C-Max	C-Max	None
Avg. Green (s)	13.2	123.4	133.6	69.9
g/C Ratio	-0.01	NA	NA	NA
Cycles Skipped (%)	38	0	0	0
Cycles @ Minimum (%)	0	0	0	0
Cycles Maxed Out (%)	46	100	100	94
Cycles with Peds (%)	0	0	0	0

**Controller Summary**

Average Cycle Length (s): NA  
 Number of Complete Cycles : 0

Intersection: 102: I-75 NB OFF RAMP/I-75 NB ON RAMP & MARY GRUBBS HWY (KY-14)

Phase	1	3	4	8
Movement(s) Served	NBL	EBL	WBT	EBTL
Maximum Green (s)	23.0	23.5	43.3	73.3
Minimum Green (s)	8.0	8.0	30.0	30.0
Recall	None	C-Max	None	C-Max
Avg. Green (s)	21.7	25.4	43.3	76.6
g/C Ratio	NA	NA	NA	NA
Cycles Skipped (%)	0	0	0	0
Cycles @ Minimum (%)	0	0	0	0
Cycles Maxed Out (%)	78	100	100	100
Cycles with Peds (%)	0	0	0	0

**Controller Summary**

Average Cycle Length (s): NA  
 Number of Complete Cycles : 0

100: WALTON VERONA RD/BEAVER RD & STEPHENSON MILL RD/MARY GRUBBS HWY (KY-14) I

Approach	EB	WB	NB	SB	All
Denied Del/Veh (s)	0.2	0.4	0.4	0.0	0.3
Total Del/Veh (s)	96.2	34.0	108.3	91.0	69.4

101: I-75 SB ON RAMP/I-75 SB OFF RAMP & MARY GRUBBS HWY (KY-14) Performance by approach

Approach	EB	WB	SB	All
Denied Del/Veh (s)	0.0	2.2	0.0	0.6
Total Del/Veh (s)	12.3	160.1	121.0	99.6

102: I-75 NB OFF RAMP/I-75 NB ON RAMP & MARY GRUBBS HWY (KY-14) Performance by approach

Approach	EB	WB	NB	All
Denied Del/Veh (s)	0.0	0.0	0.0	0.0
Total Del/Veh (s)	15.6	56.9	95.3	42.6

200: BEAVER RD & CHURCH DRIVE (EX) Performance by approach

Approach	EB	NW	All
Denied Del/Veh (s)	0.2	0.0	0.1
Total Del/Veh (s)	0.8	0.2	0.5

201: BEAVER RD & SCHOOL DRIVE (PROP) Performance by approach

Approach	EB	WB	SB	All
Denied Del/Veh (s)	0.0	0.0	0.1	0.0
Total Del/Veh (s)	0.2	0.4	4.0	0.6

Total Zone Performance

Denied Del/Veh (s)	2.3
Total Del/Veh (s)	2445.0



# APPENDIX D

## Turn Lane Warrants



**VIOX & VIOX**

Civil Engineers, Surveyors, and Landscape Architects  
466 Erlanger Road • Erlanger, Kentucky 41018  
Ph (859) 727-3293 • Fax (859) 727-8452 • [www.vioxinc.com](http://www.vioxinc.com)

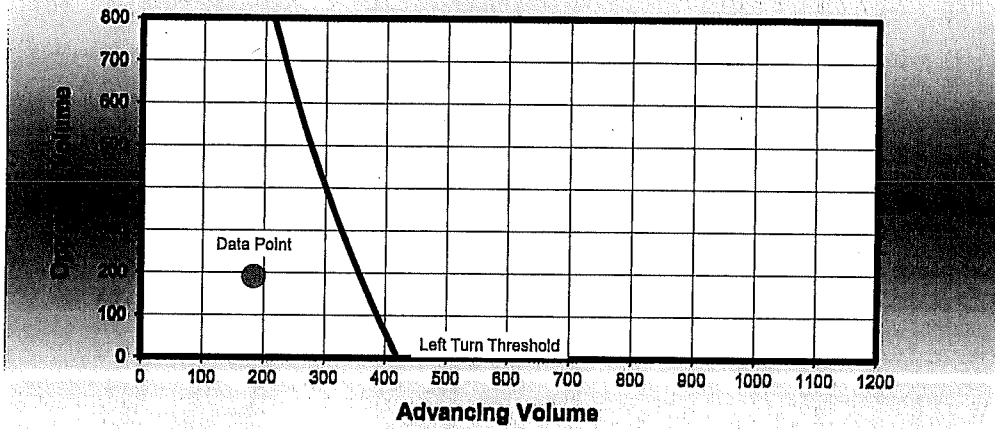
Beaver Road and Existing Church Driveway  
2034 AM No Build

### Left Turn Lane Warrants

Input Fields

Left Turn Volume (vph)	<u>38</u>	Speed Limit (mph)	<u>45</u>
Advancing Volume (vph)	<u>181</u>	No. of through lanes	<u>1</u>
Opposing Volume (vph)	<u>189</u>	Percent Heavy Vehicles (decimal percent)	<u>0.1</u>

**Left Turn Lane Warrants**



**Left Turn Lane NOT Warranted**

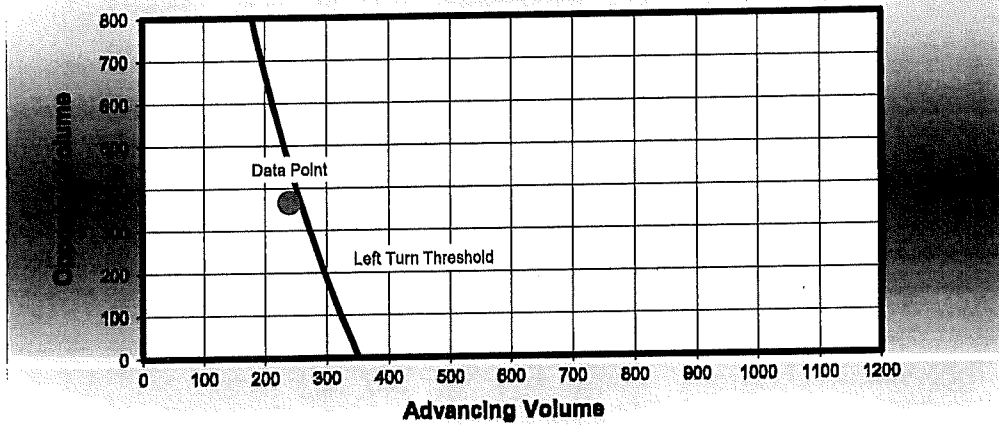
Note: This spreadsheet is intended to supplement the guidance provided in the Auxiliary Turn Lane policy outlined in the KYTC Highway Design Manual. This policy should be fully reviewed and understood prior to using this application.

## Left Turn Lane Warrants

### Input Fields

Left Turn Volume (vph)	<u>91</u>	Speed Limit (mph)	<u>45</u>
Advancing Volume (vph)	<u>234</u>	No. of through lanes	<u>1</u>
Opposing Volume (vph)	<u>366</u>	Percent Heavy Vehicles (decimal percent)	<u>0.1</u>

### Left Turn Lane Warrants



**Left Turn Lane NOT Warranted**

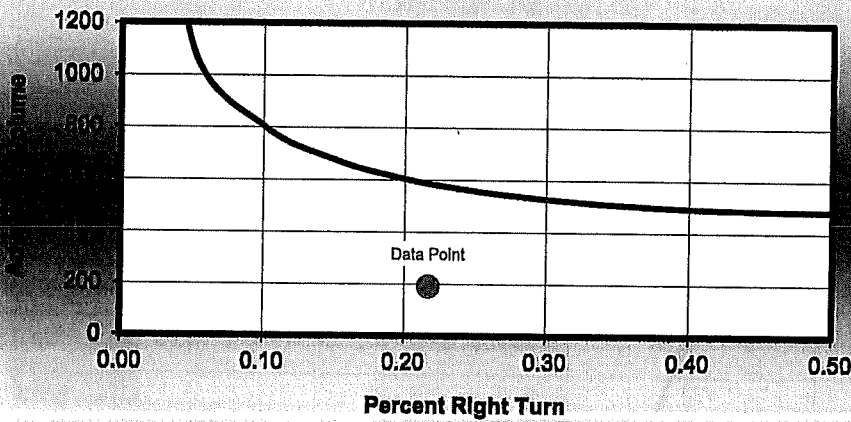
Note: This spreadsheet is intended to supplement the guidance provided in the Auxiliary Turn Lane policy outlined in the KYTC Highway Design Manual. This policy should be fully reviewed and understood prior to using this application.

## Right Turn Lane Warrants

### Input Fields

Right Turn Volume (vph) 41      Speed Limit (mph) 45  
Advancing Volume (vph) 189

Right Turn Lane Warrants



**Right Turn Lane NOT Warranted**

Note: This spreadsheet is intended to supplement the guidance provided in the Auxiliary Turn Lane policy outlined in the KYTC Highway Design Manual. This policy should be fully reviewed and understood prior to using this application.

## Right Turn Lane Warrants

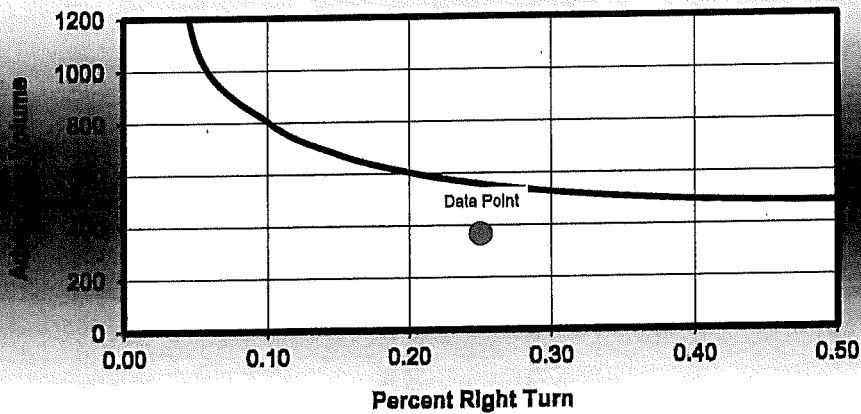
### Input Fields

Right Turn Volume (vph) 92

Speed Limit (mph) 45

Advancing Volume (vph) 366

Right Turn Lane Warrants



## Right Turn Lane NOT Warranted

Note: This spreadsheet is intended to supplement the guidance provided in the Auxiliary Turn Lane policy outlined in the KYTC Highway Design Manual. This policy should be fully reviewed and understood prior to using this application.



# **APPENDIX E**

## **Historic Traffic Data & Speed Study Data**



**VIOX & VIOX**

Civil Engineers, Surveyors, and Landscape Architects

406 Erlanger Road • Erlanger, Kentucky 41018

Ph (859) 727-3293 • Fax (859) 727-8452 • [www.vioxinc.com](http://www.vioxinc.com)

Historical Traffic Volume Summary

Station Details:

Sta ID:	008R21
Sta Type:	Full Coverage
Map:	MapIt
District:	6
County:	Boone
Route:	008-KY-1292 -000
Route Desc:	BEAVER RD

Begin MP:	4.1520
Begin Desc:	SKYWAY DRIVE
End Mp:	4.9330
End Desc:	STEPHENSON MILL RD/KY 14
Impact Year:	
Year Added:	

Newest Count:

AADT:	3467
Year:	2019
% Single:	
% Combo:	
K Factor:	9.70
D Factor:	56

Definitions:

Sta. ID - Three digit county number + station number

MP - milepoint

Impact Year - year of significant change to traffic pattern within station segment

AADT - Annual Average Daily Traffic - the annualized average 24-hour volume of vehicles on a segment of roadway

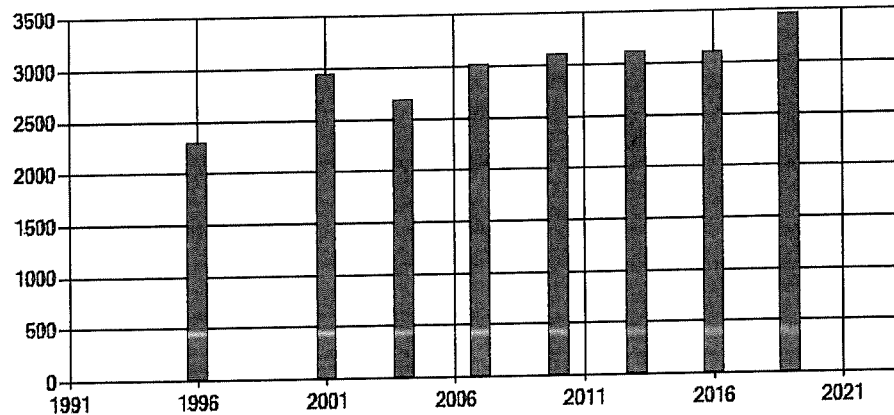
% Single - single unit truck volume as a percentage of the AADT

% Combo - combination truck volume as a percentage of the AADT

K Factor - peak hour volume as a percentage of the AADT

D Factor - percentage of peak hour volume flowing in the peak direction

Year	AADT	Year	AADT	Year	AADT
2022		2012		2002	
2021		2011		2001	2950
2020		2010	3100	2000	
2019	3467	2009		1999	
2018		2008		1998	
2017		2007	3010	1997	
2016	3101	2006		1996	2300
2015		2005		1995	
2014		2004	2680	1994	
2013	3118	2003		1993	



Historical Traffic Volume Summary

Station Details:

Sta ID:	008R28
Sta Type:	Full Coverage
Map:	MapIt
District:	6
County:	Boone
Route:	008-KY-0014 -000
Route Desc:	WALTON-VERONA RD+MARY GRUBBS HWY

Begin MP:	7.2730
Begin Desc:	SALEM CREEK ROAD
End Mp:	8.4450
End Desc:	KY 2366/KY 2368
Impact Year:	
Year Added:	

Newest Count:

AADT:	3440
Year:	2019
% Single:	10.4080
% Combo:	1.4040
K Factor:	9.90
D Factor:	56

Definitions:

Sta. ID - Three digit county number + station number

MP - milepoint

Impact Year - year of significant change to traffic pattern within station segment

AADT - Annual Average Daily Traffic - the annualized average 24-hour volume of vehicles on a segment of roadway

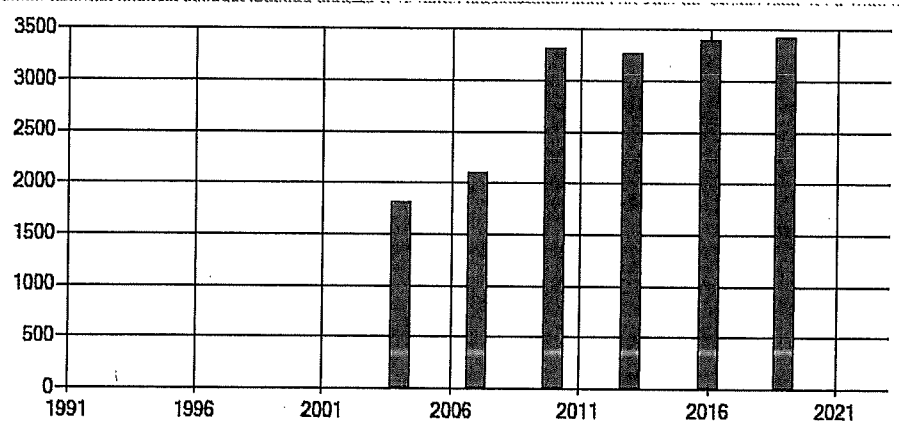
% Single - single unit truck volume as a percentage of the AADT

% Combo - combination truck volume as a percentage of the AADT

K Factor - peak hour volume as a percentage of the AADT

D Factor - percentage of peak hour volume flowing in the peak direction

Year	AADT	Year	AADT	Year	AADT
2022		2012		2002	
2021		2011		2001	
2020		2010	3320	2000	
2019	3440	2009		1999	
2018		2008		1998	
2017		2007	2100	1997	
2016	3407	2006		1996	
2015		2005		1995	
2014		2004	1820	1994	
2013	3270	2003		1993	



Historical Traffic Volume Summary

Station Details:

Sta ID:	008364
Sta Type:	Full Coverage
Map:	MapIt
District:	6
County:	Boone
Route:	008-KY-1292 -000
Route Desc:	BEAVER RD

Begin MP:	2.3780
Begin Desc:	STURGEON ROAD
End Mp:	4.1520
End Desc:	SKYWAY DRIVE
Impact Year:	
Year Added:	

Newest Count:

AADT:	951
Year:	2020
% Single:	
% Combo:	
K Factor:	10.10
D Factor:	56

Definitions:

Sta. ID - Three digit county number + station number

MP - milepoint

Impact Year - year of significant change to traffic pattern within station segment

AADT - Annual Average Daily Traffic - the annualized average 24-hour volume of vehicles on a segment of roadway

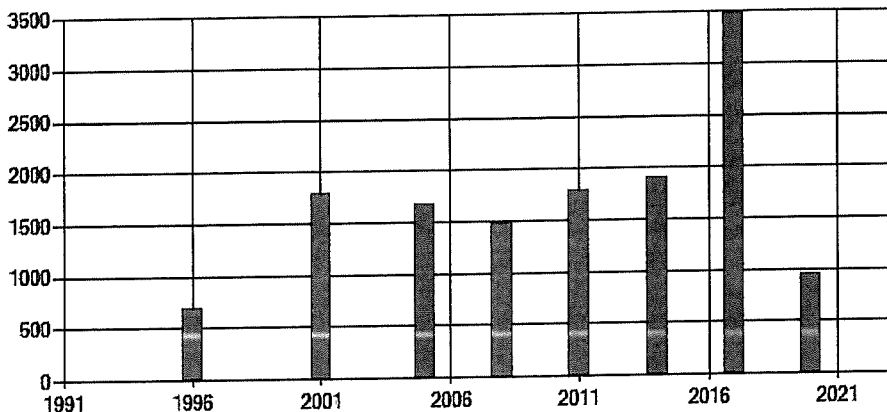
% Single - single unit truck volume as a percentage of the AADT

% Combo - combination truck volume as a percentage of the AADT

K Factor - peak hour volume as a percentage of the AADT

D Factor - percentage of peak hour volume flowing in the peak direction

Year	AADT	Year	AADT	Year	AADT
2022		2012		2002	
2021		2011	1790	2001	1790
2020	951	2010		2000	
2019		2009		1999	
2018		2008	1480	1998	
2017	3489	2007		1997	
2016		2006		1996	700
2015		2005	1670	1995	
2014	1901	2004		1994	
2013		2003		1993	





# TIS Simplified Traffic Forecast

Count Year	<b>2022</b>
Opening Year	<b>2024</b>
Design Year	<b>2034</b>
Years Back	<b>15</b>

Number of Counts	<b>13</b>
Growth Rate	<b>0.87%</b>

**KYTC Traffic Count Station #1**

STA ID 008 364

2022	
2021	
2020	950
2019	
2018	
2017	3489
2016	
2015	
2014	1901
2013	
2012	
2011	1790
2010	
2009	
2008	1480
2007	
2006	
2005	1670
2004	
2003	
2002	
2001	1790
2000	
1999	

**KYTC Traffic Count Station #2**

STA ID 008R21

2022	
2021	
2020	
2019	3467
2018	
2017	
2016	3101
2015	
2014	
2013	3118
2012	
2011	
2010	3100
2009	
2008	
2007	3010
2006	
2005	
2004	2680
2003	
2002	
2001	2950
2000	
1999	

**KYTC Traffic Count Station #3**

STA ID 008R28

2022	
2021	
2020	
2019	3440
2018	
2017	
2016	3407
2015	
2014	
2013	3270
2012	
2011	
2010	3320
2009	
2008	
2007	2100
2006	
2005	
2004	1820
2003	
2002	
2001	
2000	
1999	

1998	
1997	
1996	700
1995	
1994	
1993	
1994	
1993	

1998	
1997	
1996	2300
1995	
1994	
1993	
1994	
1993	

1998	
1997	
1996	
1995	
1994	
1993	
1994	
1993	



# Cummins Consulting Services, PLLC

2216 Young Drive, Suite 1, Lexington, KY 40505

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## "The 2020 Vision for data collection"

Beaver Rd SB

Start Time	1 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 999	Total
05/06/20	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
00:15	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
00:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
00:45	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
01:00	0	0	0	1	1	0	0	1	0	0	0	0	0	0	3
01:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:30	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
01:45	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
02:00	0	0	0	0	2	1	0	0	0	0	0	0	0	0	3
02:15	0	0	0	0	1	3	0	0	0	0	0	0	0	0	4
02:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:45	0	0	1	0	1	0	0	0	0	0	0	0	0	0	1
03:00	0	0	1	0	2	3	0	0	0	0	0	0	0	0	6
03:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:30	0	0	0	0	1	1	0	0	0	0	0	0	0	0	2
03:45	0	0	0	0	2	0	0	0	0	0	0	0	0	0	2
04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15	0	0	0	0	3	1	0	0	0	0	0	0	0	0	4
04:30	0	0	0	0	1	0	0	1	0	0	0	1	0	0	3
04:45	0	0	0	1	1	0	0	0	0	0	0	0	0	0	2
05:00	0	0	2	0	1	1	1	0	0	0	0	0	0	0	4
05:15	0	0	2	2	3	1	1	1	0	0	0	1	0	0	11
05:30	0	0	0	2	1	1	0	0	0	0	0	0	0	0	4
05:45	0	0	0	6	0	2	0	0	0	0	0	0	0	0	8
06:00	0	0	1	1	4	1	0	2	0	0	0	0	0	0	8
06:15	0	0	1	1	3	2	1	0	0	0	0	0	0	0	8
06:30	0	0	1	10	8	6	1	2	0	0	0	0	0	0	28
06:45	0	0	1	2	3	4	0	0	0	0	0	0	0	0	10
07:00	0	0	0	4	6	5	1	0	0	0	0	0	0	0	16
07:15	0	0	0	1	2	11	1	0	0	0	0	0	0	0	15
07:30	0	0	0	6	4	6	3	0	0	0	0	0	0	0	15
07:45	0	0	0	6	4	6	3	0	0	0	0	0	0	0	19
08:00	0	0	1	13	15	26	5	0	0	0	0	0	0	0	60
08:15	0	0	0	4	8	5	2	0	0	0	0	0	0	0	19
08:30	0	0	0	8	12	4	1	0	0	0	0	0	0	0	25
08:45	0	0	0	2	10	7	0	0	0	0	0	0	0	0	19
09:00	0	0	1	2	20	8	2	0	0	0	0	0	1	0	34
09:15	0	0	1	16	50	24	5	0	0	0	0	0	1	0	97
09:30	0	0	0	1	12	9	1	0	0	0	0	1	0	0	24
09:45	0	0	1	2	10	5	0	0	0	0	0	0	0	0	18
10:00	0	0	0	5	13	4	1	0	0	0	0	0	0	0	23
10:15	0	0	0	5	8	8	0	1	0	0	0	0	0	0	22
10:30	0	0	1	13	43	26	2	1	0	0	0	1	0	0	87
10:45	0	0	2	3	14	9	0	0	0	0	0	0	0	0	28
11:00	0	0	1	3	3	10	0	0	0	0	0	0	1	0	18
11:15	0	0	0	4	19	5	0	0	0	1	0	0	0	0	29
11:30	0	0	1	3	9	4	2	0	0	0	0	0	0	0	19
11:45	0	0	1	4	9	4	2	0	0	0	0	0	0	0	19
12:00	0	0	4	13	45	28	2	0	0	1	0	0	1	0	94
12:15	0	0	1	10	9	6	2	0	0	0	0	0	0	0	28
12:30	0	0	0	4	13	8	1	1	0	0	0	0	0	0	27
12:45	0	0	0	1	9	10	2	0	2	0	0	0	0	0	24
13:00	0	0	1	5	12	4	0	0	0	0	0	0	0	0	22
13:15	0	0	2	20	43	28	5	1	2	0	0	0	0	0	101
13:30	0	0	0	4	12	6	1	0	0	0	0	0	0	0	23
13:45	0	0	1	1	16	5	0	0	0	0	0	0	0	0	23
14:00	0	0	0	4	11	8	1	0	0	0	0	0	0	0	24
14:15	0	0	0	5	13	9	2	1	0	0	0	0	0	0	30
14:30	0	0	1	14	52	28	4	1	0	0	0	0	0	0	100
Total	0	0	14	102	287	172	25	7	2	1	0	2	2	0	594



# Cummins Consulting Services, PLLC

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"The 2020 Vision for data collection"

## Beaver Rd SB

Start Time	1	16	21	26	31	36	41	46	51	56	61	66	71	76	Total
Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	
12 PM	0	2	0	9	10	13	3	0	0	1	0	0	0	0	38
12:15	0	0	3	9	9	12	1	0	0	0	0	0	0	0	34
12:30	0	0	0	3	5	9	1	0	0	0	0	0	0	0	18
12:45	0	0	0	6	15	7	0	0	0	0	0	0	0	0	28
13:00	0	2	3	27	39	41	5	0	0	1	0	0	0	0	118
13:15	0	0	0	8	10	8	4	0	0	0	0	0	0	0	30
13:30	0	0	1	11	12	8	1	0	0	0	0	0	0	0	33
13:45	0	0	0	12	16	9	1	0	0	0	0	0	0	0	38
14:00	0	0	0	11	15	13	3	0	1	0	0	0	0	0	43
14:15	0	0	1	42	53	38	9	0	1	0	0	0	0	0	144
14:30	0	0	0	7	15	10	1	0	0	0	0	0	0	0	33
14:45	0	0	1	9	10	10	3	0	0	0	0	0	0	0	33
15:00	0	0	0	5	20	14	2	0	0	0	0	0	0	0	41
15:15	0	0	0	8	10	12	1	1	0	0	0	0	0	0	32
15:30	0	0	1	29	55	46	7	1	0	0	0	0	0	0	139
15:45	0	0	2	2	10	8	4	0	0	0	0	0	0	0	26
16:00	0	0	0	3	23	8	3	1	0	0	0	0	0	0	38
16:15	0	0	1	6	10	15	1	0	1	0	0	0	0	0	34
16:30	0	0	0	6	14	15	3	0	0	0	0	0	0	0	38
16:45	0	0	3	17	57	46	11	1	1	0	0	0	0	0	136
17:00	0	0	2	7	16	7	1	1	0	0	0	0	0	0	34
17:15	0	0	0	5	19	12	1	1	0	0	0	0	0	0	38
17:30	0	0	0	7	8	10	1	1	0	0	0	0	0	0	27
17:45	0	0	1	12	17	12	2	1	0	0	0	0	0	0	45
18:00	0	0	3	31	60	41	5	4	0	0	0	0	0	0	144
18:15	0	0	0	6	29	24	3	0	0	0	0	0	0	0	62
18:30	0	0	0	2	18	8	2	1	0	0	0	0	0	0	31
18:45	0	0	0	5	7	11	3	0	0	0	0	0	0	0	26
19:00	0	0	0	7	6	5	3	0	1	0	0	0	0	0	22
19:15	0	0	0	20	60	48	11	1	1	0	0	0	0	0	141
19:30	0	0	0	7	9	6	1	1	0	0	0	0	0	0	24
19:45	0	0	1	0	7	9	3	1	0	0	0	0	0	0	21
20:00	0	0	0	0	4	9	0	0	0	0	0	0	0	0	13
20:15	0	0	0	3	2	3	1	0	0	0	0	0	0	0	9
20:30	0	0	1	10	22	27	5	2	0	0	0	0	0	0	67
20:45	0	0	0	0	2	4	2	0	0	0	0	0	0	0	8
21:00	0	0	0	5	6	5	2	1	0	0	0	0	0	0	19
21:15	0	0	0	0	5	8	0	1	0	0	0	0	0	0	14
21:30	0	0	1	2	3	5	0	0	0	0	0	0	0	0	11
21:45	0	0	1	7	16	22	4	2	0	0	0	0	0	0	52
22:00	0	0	0	1	2	2	1	0	0	0	0	0	0	0	6
22:15	0	0	0	0	3	2	2	0	0	0	0	0	0	0	7
22:30	0	0	0	1	2	7	1	0	0	0	0	0	0	0	11
22:45	0	0	2	2	7	4	1	0	0	0	0	0	0	0	16
23:00	0	0	2	4	14	15	5	0	0	0	0	0	0	0	40
23:15	0	0	0	3	3	2	2	0	0	0	0	0	0	0	10
23:30	0	0	0	3	11	0	0	0	0	0	0	0	0	0	14
23:45	0	0	0	3	7	1	0	0	0	0	0	0	0	0	11
24:00	0	0	0	0	3	1	0	0	0	0	0	0	0	0	4
24:15	0	0	0	9	24	4	2	0	0	0	0	0	0	0	39
24:30	0	0	0	0	3	5	0	1	0	0	0	0	0	0	9
24:45	0	0	0	0	0	4	1	0	0	0	0	0	0	0	5
25:00	0	0	0	0	1	2	1	1	0	0	0	0	0	0	5
25:15	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
25:30	0	0	0	0	4	12	2	2	0	0	0	0	0	0	20
25:45	0	0	0	2	2	0	0	0	0	0	0	0	0	0	4
26:00	0	0	0	0	1	1	0	0	0	0	0	0	0	0	2
26:15	0	0	0	2	0	2	0	0	0	0	0	0	0	0	4
26:30	0	0	0	1	0	1	0	0	0	0	0	0	0	0	2
26:45	0	0	0	1	0	1	0	0	0	0	0	0	0	0	2
27:00	0	0	0	5	3	4	0	0	0	0	0	0	0	0	12
Total	0	2	15	201	407	344	66	13	3	1	0	0	0	0	1052
Grand Total	0	2	29	303	674	516	91	20	5	2	0	2	2	0	1646

15th Percentile : 28 MPH  
 50th Percentile : 33 MPH  
 85th Percentile : 38 MPH  
 95th Percentile : 42 MPH

Stats  
 Mean Speed(Average) : 34 MPH  
 10 MPH Pace Speed : 31-40 MPH  
 Number In Pace : 1190  
 Percent In Pace : 72.3%  
 Number of Vehicles > 55 MPH : 6  
 Percent of Vehicles > 55 MPH : 0.4%



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"The 2020 Vision for data collection"

Beaver Rd NB

Start Time	1	16	21	26	31	36	41	46	51	56	61	66	71	76	999	Total
	15	20	25	30	35	40	45	50	55	60	65	70	75			
05/06/20	0	0	0	0	0	2	0	1	0	0	0	0	0	0	0	3
00:15	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	2
00:30	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
00:45	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	4
01:00	0	0	0	2	2	3	1	2	0	0	0	0	0	0	0	10
01:15	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
01:30	0	0	0	0	2	3	2	0	0	0	0	0	0	0	0	7
01:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00	0	0	0	0	2	5	2	0	0	0	0	0	0	0	0	9
02:15	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
02:30	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
02:45	0	0	0	0	0	2	0	0	1	0	0	0	0	0	0	3
03:00	0	0	1	0	0	2	1	0	1	0	0	0	0	0	0	5
03:15	0	0	0	1	1	1	1	0	0	0	0	0	0	0	0	4
03:30	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	2
03:45	0	0	0	1	2	0	1	0	0	0	0	0	0	0	0	4
04:00	0	0	0	2	5	1	2	0	0	0	0	0	0	0	0	10
04:15	0	0	0	0	1	2	0	0	0	0	0	0	0	0	0	3
04:30	0	0	0	0	0	3	1	0	0	0	0	0	0	0	0	4
04:45	0	0	2	4	3	5	2	0	0	0	0	0	1	0	0	6
05:00	0	0	2	4	5	13	4	1	0	0	0	0	1	0	0	17
05:15	0	0	0	1	1	1	1	0	0	0	0	0	0	0	0	30
05:30	0	0	0	1	3	4	2	1	0	0	0	0	0	0	0	4
05:45	0	0	0	2	3	0	0	0	1	0	0	0	0	1	0	11
06:00	0	0	0	1	4	10	2	2	0	1	0	0	0	0	0	7
06:15	0	0	0	5	11	15	5	3	1	1	0	0	0	1	0	20
06:30	1	0	0	1	7	5	3	1	0	0	0	0	1	0	0	42
06:45	0	0	0	3	7	6	4	2	0	0	0	0	0	0	0	19
07:00	0	0	0	1	9	9	8	0	1	0	0	1	1	0	0	22
07:15	0	0	2	3	5	13	8	2	0	0	0	0	0	0	0	30
07:30	1	0	2	8	28	33	23	5	1	0	0	1	2	0	0	33
07:45	0	0	2	3	8	10	5	2	0	0	0	1	1	0	0	104
08:00	0	0	1	3	10	13	4	0	0	0	0	1	1	1	0	32
08:15	0	0	0	3	5	9	4	0	0	0	0	1	2	0	0	34
08:30	0	1	2	3	14	15	12	0	0	0	0	1	1	0	0	24
08:45	0	1	2	3	14	15	12	0	0	0	0	1	1	0	0	49
09:00	0	1	5	12	37	47	25	2	0	0	0	4	5	1	0	139
09:15	0	0	4	7	6	9	5	1	0	0	1	0	0	0	0	33
09:30	0	0	0	2	7	10	6	2	0	0	0	0	0	1	0	28
09:45	0	0	0	3	8	7	2	1	0	0	1	0	0	0	0	22
10:00	0	0	0	2	8	12	9	0	0	0	0	0	0	0	0	31
10:15	0	0	4	14	29	38	22	4	0	0	2	0	0	1	0	114
10:30	0	0	1	1	7	6	5	1	1	0	0	0	1	0	0	23
10:45	0	0	1	3	7	5	5	0	0	0	0	2	0	0	0	23
11:00	0	0	1	7	7	6	5	2	0	0	0	1	2	0	0	31
11:15	0	0	0	1	5	12	4	0	0	0	0	0	0	2	0	24
11:30	0	0	3	12	26	29	19	3	1	0	0	3	3	2	0	101
11:45	0	0	1	4	13	17	7	1	1	0	0	0	0	0	0	44
12:00	0	0	1	1	9	8	3	0	0	1	0	0	0	0	0	23
12:15	0	0	0	4	6	13	3	0	0	0	0	0	0	0	0	26
12:30	0	0	0	1	4	8	4	0	0	0	0	0	0	1	0	18
12:45	0	0	2	10	32	46	17	1	1	0	1	0	0	0	1	111
13:00	0	0	1	4	6	9	5	0	1	0	0	0	1	0	0	27
13:15	0	0	0	2	10	9	4	1	0	0	0	0	1	0	0	27
13:30	0	1	1	4	4	10	4	0	0	0	0	0	2	0	0	26
13:45	0	0	1	1	9	15	3	2	0	0	0	0	0	0	0	31
14:00	0	1	3	11	29	43	16	3	1	0	0	0	4	0	0	111
Total	1	2	22	80	206	275	137	24	6	1	3	8	15	6		786



# Cummins Consulting Services, PLLC

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## "The 2020 Vision for data collection"

### Beaver Rd NB

Start Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total
12 PM	0	0	0	1	7	11	4	0	0	0	0	0	0	0	23
12:15	0	0	1	7	9	7	7	2	0	1	0	0	0	1	36
12:30	0	0	0	1	15	9	7	0	0	0	0	1	0	0	33
12:45	0	0	0	0	10	19	9	1	0	0	0	0	0	0	39
13:00	0	0	1	9	41	46	27	3	0	1	0	1	0	1	130
13:15	0	0	0	5	9	27	4	0	0	0	0	1	0	0	46
13:30	0	0	0	2	5	15	15	2	1	0	0	0	1	0	41
13:45	0	0	0	1	16	14	6	2	0	0	0	0	1	0	40
14:00	0	0	0	1	12	13	6	0	0	0	0	0	1	0	33
14:15	0	0	0	9	42	69	31	4	1	0	0	1	3	0	160
14:30	0	0	2	1	9	21	5	3	0	0	0	1	1	0	43
14:45	0	0	2	5	14	15	11	1	0	0	0	0	0	0	48
15:00	0	0	0	0	7	13	6	5	0	0	0	0	1	0	32
15:15	0	0	0	1	5	10	10	2	0	0	0	0	0	2	30
15:30	0	0	4	7	35	59	32	11	0	0	0	1	2	2	153
15:45	0	0	0	0	4	19	14	6	0	0	0	0	0	0	43
16:00	0	0	0	5	3	13	6	2	0	0	0	0	0	0	29
16:15	0	0	0	0	3	11	6	4	0	0	0	0	0	0	24
16:30	0	0	0	3	21	17	8	2	0	0	0	0	0	0	51
16:45	0	0	0	8	31	60	34	14	0	0	0	0	0	0	147
17:00	0	0	0	0	4	10	4	3	1	0	0	0	0	0	22
17:15	0	0	1	0	12	8	9	0	0	0	0	0	1	0	31
17:30	0	0	0	1	2	18	8	1	0	0	0	0	0	0	30
17:45	0	0	0	0	4	12	9	1	0	0	0	0	1	0	27
18:00	0	0	1	1	22	48	30	5	1	0	0	0	2	0	110
18:15	0	0	0	2	8	16	8	2	0	0	0	0	0	0	36
18:30	0	0	0	1	14	16	8	1	0	1	0	0	0	0	41
18:45	0	0	0	0	2	7	10	0	2	0	0	0	0	1	22
19:00	0	0	1	0	10	9	0	2	0	0	1	0	0	0	23
19:15	0	0	1	3	34	48	26	5	2	1	1	0	0	1	122
19:30	0	0	0	1	3	8	5	0	0	0	0	0	0	0	17
19:45	0	0	0	2	9	4	1	0	0	0	0	0	0	0	16
20:00	0	0	0	0	1	3	3	0	0	0	0	0	0	0	7
20:15	0	0	0	1	9	5	4	1	0	0	0	0	0	0	20
20:30	0	0	0	2	15	25	16	2	0	0	0	0	0	0	60
20:45	0	0	0	0	3	3	2	1	0	0	0	0	0	0	9
21:00	0	0	0	1	8	1	1	0	0	0	0	0	0	0	11
21:15	0	0	0	0	4	6	2	0	0	0	0	0	0	0	12
21:30	0	0	0	5	4	3	7	1	0	0	0	0	0	0	20
21:45	0	0	0	4	3	7	1	0	0	0	0	0	0	0	52
22:00	0	0	0	5	12	20	12	3	0	0	0	0	0	0	52
22:15	0	0	0	2	4	6	1	2	0	0	0	0	0	0	15
22:30	0	0	0	0	8	4	6	0	0	0	0	0	0	0	18
22:45	0	0	1	0	3	5	5	0	0	1	0	0	0	0	15
23:00	0	0	0	1	2	3	2	1	0	0	0	0	0	0	9
23:15	0	0	1	3	17	18	14	3	0	1	0	0	0	0	57
23:30	0	0	0	1	0	7	4	0	1	0	0	0	0	0	13
23:45	0	0	1	2	1	2	0	2	0	0	0	0	0	0	8
24:00	0	0	0	0	2	0	0	0	0	0	0	0	0	0	4
24:15	0	0	0	0	1	1	0	0	0	0	0	0	0	0	2
24:30	0	0	1	3	2	12	6	2	1	0	0	0	0	0	27
24:45	0	0	0	0	1	3	2	0	0	0	0	0	0	0	6
25:00	0	0	0	0	3	3	1	1	0	0	0	0	0	0	8
25:15	0	0	0	0	2	0	0	0	0	0	0	0	0	0	2
25:30	0	0	0	1	0	1	0	0	0	0	0	0	0	0	3
25:45	0	0	0	1	4	9	4	1	0	0	0	0	0	0	19
26:00	0	0	0	0	0	4	0	0	0	0	0	0	0	0	4
26:15	0	0	0	0	1	0	0	0	1	0	0	0	0	0	2
26:30	0	0	0	1	3	2	0	0	0	0	0	0	0	0	6
26:45	0	0	0	1	0	1	0	0	0	0	0	0	0	0	2
27:00	0	0	0	2	3	8	0	0	1	0	0	0	0	0	14
Total	0	0	9	53	258	422	232	53	6	3	1	3	7	4	1051
Grand Total	1	2	31	133	464	697	369	77	12	4	4	11	22	10	1837

15th Percentile : 31 MPH  
 50th Percentile : 37 MPH  
 85th Percentile : 43 MPH  
 95th Percentile : 47 MPH

Stats Mean Speed(Average) : 38 MPH  
 10 MPH Pace Speed : 31-40 MPH  
 Number In Pace : 1161  
 Percent In Pace : 63.2%  
 Number of Vehicles > 55 MPH : 51  
 Percent of Vehicles > 55 MPH : 2.8%



# Cummins Consulting Services, PLLC

2216 Young Drive, Suite 1, Lexington, KY 40505

Office: 859-785-1500 www.ccsdata.com

## "The 2020 Vision for data collection"

Beaver Rd SB, Beaver Rd NB

Start Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total
05/06/20	0	0	0	0	0	2	0	2	0	0	0	0	0	0	4
00:15	0	0	0	0	1	0	1	1	0	0	0	0	0	0	3
00:30	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
00:45	0	0	0	3	2	0	0	0	0	0	0	0	0	0	5
01:00	0	0	0	3	3	3	1	3	0	0	0	0	0	0	13
01:15	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
01:30	0	0	0	0	1	1	0	0	0	0	0	0	0	0	2
01:45	0	0	0	0	2	4	2	0	0	0	0	0	0	0	8
02:00	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
02:15	0	0	0	0	4	6	2	0	0	0	0	0	0	0	12
02:30	0	0	1	0	1	3	0	0	0	0	0	0	0	0	4
02:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
03:00	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
03:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:30	0	0	0	0	1	0	1	0	0	0	0	0	0	0	2
03:45	0	0	0	1	2	0	1	0	0	0	0	0	0	0	4
04:00	0	0	0	2	8	2	2	0	0	0	0	0	0	0	14
04:15	0	0	0	0	2	2	0	1	0	0	0	1	0	0	6
04:30	0	0	0	1	1	3	1	0	0	0	0	0	0	0	6
04:45	0	0	0	1	2	4	2	1	0	0	0	0	0	0	10
05:00	0	0	4	4	3	5	2	0	0	0	0	0	1	0	19
05:15	0	0	4	6	8	14	5	2	0	0	0	1	1	0	41
05:30	0	0	0	3	2	2	1	0	0	0	0	0	0	0	8
05:45	0	0	0	7	3	6	2	1	0	0	0	0	0	0	19
06:00	0	0	0	3	7	1	0	2	1	0	0	0	0	1	15
06:15	0	0	1	2	7	12	3	2	0	1	0	0	0	0	28
06:30	0	0	1	15	19	21	6	5	1	1	0	0	0	1	70
06:45	1	0	1	3	10	9	3	1	0	0	0	1	2	0	29
07:00	0	0	0	7	13	11	5	2	0	0	0	0	0	0	38
07:15	0	0	0	2	11	20	9	0	1	0	0	1	1	0	45
07:30	0	0	2	9	9	19	11	2	0	0	0	0	0	0	52
07:45	1	0	3	21	43	59	28	5	1	0	0	1	2	0	164
08:00	0	0	2	7	16	15	7	2	0	0	0	1	1	0	51
08:15	0	0	1	11	22	17	5	0	0	0	0	1	1	1	59
08:30	0	0	0	5	15	16	4	0	0	0	0	1	2	0	43
08:45	0	1	3	5	34	23	14	0	0	0	0	1	2	0	83
09:00	0	1	6	28	87	71	30	2	0	0	0	4	6	1	236
09:15	0	0	4	8	18	18	6	1	0	0	1	1	0	0	57
09:30	0	0	1	4	17	15	6	2	0	0	0	0	0	1	46
09:45	0	0	0	8	21	11	3	1	0	0	1	0	0	0	45
10:00	0	0	0	7	16	20	9	1	0	0	0	0	0	0	53
10:15	0	0	5	27	72	64	24	5	0	0	2	1	0	1	201
10:30	0	0	3	4	21	15	5	1	1	0	0	0	1	0	51
10:45	0	0	2	6	10	15	5	0	0	0	0	2	1	0	41
11:00	0	0	1	11	26	11	5	2	0	1	0	1	2	0	60
11:15	0	0	1	4	14	16	6	0	0	0	0	0	0	2	43
11:30	0	0	7	25	71	57	21	3	1	1	0	3	4	2	195
11:45	0	0	2	14	22	23	9	1	1	0	0	0	0	0	72
12:00	0	0	1	5	22	16	4	1	0	0	1	0	0	0	50
12:15	0	0	0	5	15	23	5	0	2	0	0	0	0	0	50
12:30	0	0	1	6	16	12	4	0	0	0	0	0	0	1	40
12:45	0	0	4	30	75	74	22	2	3	0	1	0	0	1	212
13:00	0	0	1	8	18	15	6	0	1	0	0	0	1	0	50
13:15	0	0	1	3	26	14	4	1	0	0	0	0	1	0	50
13:30	0	1	1	8	15	18	5	0	0	0	0	0	2	0	50
13:45	0	0	1	6	22	24	5	3	0	0	0	0	0	0	61
Total	0	1	4	25	81	71	20	4	1	0	0	0	4	0	211
Total	1	2	36	182	473	447	162	31	8	2	3	10	17	6	1380



# Cummins Consulting Services, PLLC

2216 Young Drive, Suite 1, Lexington, KY 40505

Office: 859-785-1500 www.ccsdata.com

## "The 2020 Vision for data collection"

Beaver Rd SB, Beaver Rd NB

Start Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total
12 PM	0	2	0	10	17	24	7	0	0	1	0	0	0	0	61
12:15	0	0	4	16	18	19	8	2	0	1	0	0	0	1	69
12:30	0	0	0	4	20	18	8	0	0	0	0	1	0	0	51
12:45	0	0	0	6	25	26	9	1	0	0	0	0	0	0	67
13:00	0	2	4	36	80	87	32	3	0	2	0	1	0	1	248
13:15	0	0	0	13	19	35	8	0	0	0	0	1	0	0	76
13:15	0	0	1	13	17	23	16	2	1	0	0	0	1	0	74
13:30	0	0	0	13	32	23	7	2	0	0	0	0	1	0	78
13:45	0	0	0	12	27	26	9	0	1	0	0	0	1	0	76
14:00	0	0	1	51	95	107	40	4	2	0	0	1	3	0	304
14:15	0	0	2	8	24	31	6	3	0	0	0	1	1	0	76
14:15	0	0	3	14	24	25	14	1	0	0	0	0	0	0	81
14:30	0	0	0	5	27	27	8	5	0	0	0	0	1	0	73
14:45	0	0	0	9	15	22	11	3	0	0	0	0	0	2	62
15:00	0	0	5	36	90	105	39	12	0	0	0	1	2	2	292
15:15	0	0	2	2	14	27	18	6	0	0	0	0	0	0	69
15:15	0	0	0	8	26	21	9	3	0	0	0	0	0	0	67
15:30	0	0	1	6	13	26	7	4	1	0	0	0	0	0	58
15:45	0	0	0	9	35	32	11	2	0	0	0	0	0	0	89
16:00	0	0	3	25	88	106	45	15	1	0	0	0	0	0	283
16:15	0	0	2	7	20	17	5	4	1	0	0	0	0	0	56
16:15	0	0	1	5	31	20	10	1	0	0	0	0	1	0	69
16:30	0	0	0	8	10	28	9	2	0	0	0	0	0	0	57
16:45	0	0	1	12	21	24	11	2	0	0	0	0	1	0	72
17:00	0	0	4	32	82	89	35	9	1	0	0	0	2	0	254
17:15	0	0	0	8	37	40	11	2	0	0	0	0	0	0	98
17:15	0	0	0	3	32	24	10	2	0	1	0	0	0	0	72
17:30	0	0	0	5	9	18	13	0	2	0	0	0	0	1	48
17:45	0	0	1	7	16	14	3	2	1	0	1	0	0	0	45
18:00	0	0	1	23	94	96	37	6	3	1	1	0	0	1	263
18:15	0	0	0	8	12	14	6	1	0	0	0	0	0	0	41
18:15	0	0	1	0	9	18	7	2	0	0	0	0	0	0	37
18:30	0	0	0	0	5	12	3	0	0	0	0	0	0	0	20
18:45	0	0	0	4	11	8	5	1	0	0	0	0	0	0	29
19:00	0	0	1	12	37	52	21	4	0	0	0	0	0	0	127
19:15	0	0	0	0	5	7	4	1	0	0	0	0	0	0	17
19:30	0	0	0	5	7	13	3	2	0	0	0	0	0	0	30
19:30	0	0	0	0	9	14	2	1	0	0	0	0	0	0	26
19:45	0	0	1	7	7	8	7	1	0	0	0	0	0	0	31
20:00	0	0	1	12	28	42	16	5	0	0	0	0	0	0	104
20:15	0	0	0	3	6	8	2	2	0	0	0	0	0	0	21
20:30	0	0	0	0	11	6	8	0	0	0	0	0	0	0	25
20:30	0	0	1	1	5	12	6	0	0	1	0	0	0	0	26
20:45	0	0	2	3	9	7	3	1	0	0	0	0	0	0	25
21:00	0	0	3	7	31	33	19	3	0	1	0	0	0	0	97
21:15	0	0	0	4	3	9	6	0	1	0	0	0	0	0	23
21:15	0	0	1	5	12	2	0	2	0	0	0	0	0	0	22
21:30	0	0	0	3	7	3	2	0	0	0	0	0	0	0	15
21:45	0	0	0	0	4	2	0	0	0	0	0	0	0	0	6
22:00	0	0	1	12	26	16	8	2	1	0	0	0	0	0	66
22:15	0	0	0	0	4	8	2	1	0	0	0	0	0	0	15
22:15	0	0	0	0	3	7	2	1	0	0	0	0	0	0	13
22:30	0	0	0	0	1	4	1	1	0	0	0	0	0	0	7
22:45	0	0	0	1	0	2	1	0	0	0	0	0	0	0	4
23:00	0	0	0	1	8	21	6	3	0	0	0	0	0	0	39
23:15	0	0	0	2	2	4	0	0	0	0	0	0	0	0	8
23:15	0	0	0	0	1	2	0	0	1	0	0	0	0	0	4
23:30	0	0	0	3	3	4	0	0	0	0	0	0	0	0	10
23:45	0	0	0	2	0	2	0	0	0	0	0	0	0	0	4
Total	0	2	24	254	665	766	298	66	9	4	1	3	7	4	2103
Grand Total	1	4	60	436	1138	1213	460	97	17	6	4	13	24	10	3483

15th Percentile : 30 MPH  
 50th Percentile : 35 MPH  
 85th Percentile : 41 MPH  
 95th Percentile : 44 MPH

Stats  
 Mean Speed(Average) : 36 MPH  
 10 MPH Pace Speed : 31-40 MPH  
 Number In Pace : 2351  
 Percent In Pace : 67.5%  
 Number of Vehicles > 55 MPH : 57  
 Percent of Vehicles > 55 MPH : 1.6%

**ORDINANCE 2022-10**

**AN ORDINANCE OF THE CITY OF WALTON, KENTUCKY, APPROVING A RECOMMENDATION OF THE BOONE COUNTY PLANNING COMMISSION PURSUANT TO KRS 100.209, TO ESTABLISH ZONING FOR THAT PART OF THE “OUR LADY OF GOOD COUNSEL CHURCH and HOME SWEET HOME TRUST” PROPERTY THAT IS NOT ALREADY WITHIN THE CITY LIMITS OF THE CITY OF WALTON, CONSISTING OF APPROXIMATELY 8.986 ACRES OF LAND, LOCATED ALONG AND ADJOINING THE CURRENT NORTHWEST BOUNDARY OF THE CITY, AND LOCATED NORTH OF BEAVER ROAD, WEST OF I-75, AND SURROUNDING SKYWAY DRIVE, INCLUDING ITS RIGHT-OF-WAY, ALL AS MORE PARTICULARLY DESCRIBED AND ILLUSTRATED IN THE EXHIBITS TO THIS ORDINANCE, AND WHICH PROPERTY IS RECOMMENDED TO BE ZONED PUBLIC FACILITIES (PF) UPON ITS ANNEXATION INTO THE CITY LIMITS; AND TO APPROVE THE PLANNING COMMISSION’S RECOMMENDATION TO APPROVE THE SUBMITTED REVISED CONCEPT DEVELOPMENT PLAN FOR THIS AND THE ADJOINING PROPERTY THAT IS ALREADY WITHIN THE CITY LIMITS CONSISTING OF APPROXIMATELY 13.8 ACRES OF LAND UPON WHICH IS LOCATED THE CHURCH AT 472 BEAVER ROAD; ALL ACCORDING TO THE RECORD DEVELOPED BY THE PLANNING COMMISSION AND IN ACCORDANCE WITH THE FINDINGS AND CONDITIONS OF APPROVAL THEREIN WHICH ARE ALL INCORPORATED HEREIN BY REFERENCE, IN ORDER TO CONSTRUCT AND OPERATE A SCHOOL BUILDING AND RELATED IMPROVEMENTS.**

**WHEREAS**, the City of Walton has adopted Ordinance 2022-08, wherein the City expressed its Intent to Annex into its City Limits the “*OUR LADY OF GOOD COUNSEL CHURCH and HOME SWEET HOME TRUST*” property consisting of approximately 8.986 acres of land that is not already within the City Limits of the City of Walton, located North of Beaver Road, West of I-75, and surrounding Skyway Drive, including its right-of-way, all as more particularly described and illustrated in the Exhibits to this Ordinance and adjoining the current northwest boundary of the City; and

**WHEREAS**, also pursuant to Ordinance 2022-08, the Boone County Planning Commission held a Public Hearing pursuant to KRS 100.209 for the purpose of making its recommendations as to the zoning or other land use regulations which will be effective for the *OUR*

*LADY OF GOOD COUNSEL CHURCH and HOME SWEET HOME TRUST* property upon its annexation. The property owners requested that the City consider applying the Public Facilities (PF) zone, which currently applies to the Owners' existing Church property upon its annexation into the City Limits, so that the property may be developed with a school building and related facilities according to the submitted revised concept development plan;

**WHEREAS**, on October 5, 2022, the Boone County Planning Commission held a public hearing, pursuant to notice, for the purpose of seeking public input and considering the zoning request for the subject property;

**WHEREAS**, public and professional input was presented to the Boone County Planning Commission at the public hearing, consisting of oral testimony, a presentation, and exhibits; and the Boone County Planning Commission thereafter referred the matter to its Zone Change Committee, and thereafter considered the evidence presented and discussed the issues; and

**WHEREAS**, on November 2, 2022, the Boone County Planning Commission voted unanimously to recommend that the subject property's zoning classification be changed from Suburban Residential One (SR-1) to Public Facilities (PF) upon its annexation into the Walton City Limits, and to approve the submitted revised concept development plan, all with the agreed to conditions of approval and subject to the stated findings of fact as documented in the record of the Commission; and

**NOW THEREFORE, BE IT ORDAINED BY THE CITY OF WALTON, KENTUCKY, AS FOLLOWS:**

**Section 1.** The recommendations of the Boone County Planning Commission, as evidenced by the record developed in this case, are hereby adopted and approved. All exhibits admitted, accepted and made part of the record of the Planning Commission's proceedings, including the Minutes thereof, are incorporated herein by reference and made a part of the record of these proceedings.

**Section 2.** The zoning classification of the "*OUR LADY OF GOOD COUNSEL CHURCH and HOME SWEET HOME TRUST*" property consisting of approximately 8.986 acres of land that is not already within the City Limits of the City of Walton, located North of Beaver Road, West of I-75, and surrounding Skyway Drive, including its right-of-way, all as more particularly described

and illustrated in the Exhibits to this Ordinance and adjoining the current northwest boundary of the City shall be changed to Public Facilities (PF) upon its annexation into the Walton City Limits; and the submitted revised concept development plan is approved; all with the agreed to conditions of approval and subject to the stated findings of fact as documented in the record of the Commission, so that the property may be developed with a school building and related facilities according to the submitted revised concept development plan.

**Section 3.** The zoning map shall be amended accordingly upon the annexation of the property into the City Limits. The basis for zoning the newly annexed territory is contained in the record of the Boone County Planning Commission proceedings in this matter, including the stated findings of fact, all of which are incorporated herein by reference to this Ordinance.

**Section 4.** This Ordinance shall be effective upon its adoption and approval according to law, and publication thereafter.

**Section 5.** All ordinances or parts of any ordinances in conflict herewith, to the extent of the conflict, if any, are hereby repealed.

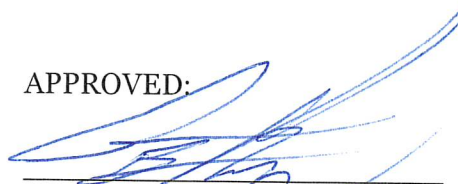
**Section 6.** This Ordinance may be read and published in summary form.

\*\*\*

PASSED AND APPROVED ON FIRST READING BY -4- OF -5- MEMBERS OF CITY COUNCIL ON THE 13<sup>th</sup> DAY OF DECEMBER, 2022.


PASSED AND APPROVED ON SECOND READING BY -4- OF -5- MEMBERS OF CITY COUNCIL ON THE 20<sup>th</sup> DAY OF DECEMBER, 2022.

APPROVED:



GABRIEL D. BROWN, MAYOR

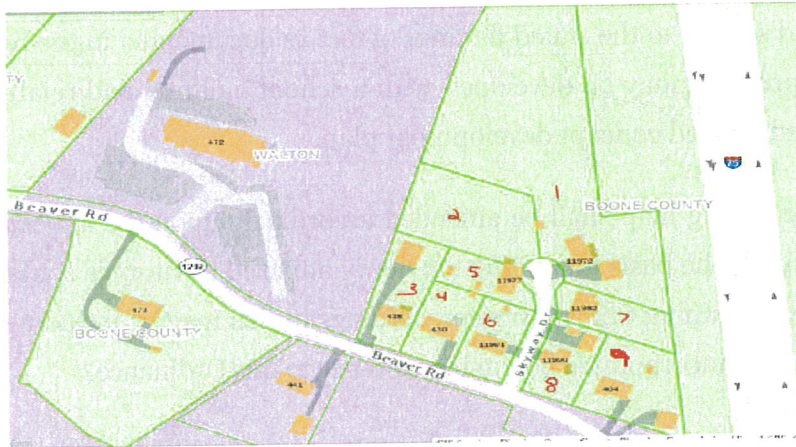
ATTEST:



GEVANA HICKS, CITY CLERK

DATE OF PUBLICATION: 12/23/2022

**EXHIBIT A PROPERTY TO BE ANNEXED & ZONED**



1	077.00-03-007.00	11972 SKYWAY DR	HOME SWEET HOME TRUST
2	077.00-03-007.01	END OF SKYWAY DR	OUR LADY OF GOOD COUNSEL CHURCH
3	077.00-03-005.00	438 BEAVER RD	OUR LADY OF GOOD COUNSEL CHURCH
4	077.00-03-004.00	430 BEAVER RD	HOME SWEET HOME TRUST
5	077.00-03-006.00	11977 SKYWAY DR	OUR LADY OF GOOD COUNSEL CHURCH
6	077.00-03-003.00	11991 SKYWAY DR	HOME SWEET HOME TRUST
7	077.00-03-010.00	11982 SKYWAY DR	HOME SWEET HOME TRUST
8	077.00-03-002.00	11990 SKYWAY DR	HOME SWEET HOME TRUST
9	077.00-03-001.00	404 BEAVER RD	HOME SWEET HOME TRUST

**PLAT OF 8.986 ACRES  
TO BE ANNEXED BY  
WALTON, KENTUCKY**

**BOONE COUNTY KENTUCKY**

**NORTH SIDE OF BEAVER ROAD  
WEST SIDE OF INTERSTATE 75**

DECEMBER 29, 2022 SCALE: 1"=100'



**VIOX & VIOX**

Civil Engineers, Surveyors, and Landscape Architects  
466 Erlanger Road • Erlanger, Kentucky 41018  
802 Lita Avenue • Millford, Ohio 45150  
Ph Erlanger (859)727-3293 • Ph Millford (513)576-1000 • www.vioxinc.com

Note: This plat was prepared using existing Boone County Planning Commission GIS information, deeds and plats of record in the office of the Boone County Clerk and existing archived Interstate 75/71 highway plans available at the time this document was prepared. No field survey was performed.

*Gregory A. Larison*  
Gregory A. Larison  
P.L.S. 3357  
12/29/22  
Date



CO-TRUSTEES OF OUR LADY  
OF GOOD COUNSEL CHURCH  
D.B. 851, PG. 61

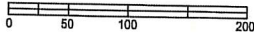
EXISTING CORPORATE  
BOUNDARIES OF  
CITY OF WALTON  
UNINCORPORATED  
BOONE COUNTY

CHESTER STURGEON &  
JOHN WOOD SUBDIVISION  
P.B. 6, PG. 48

LOT 8

OUR LADY OF GOOD  
COUNSEL CHURCH  
D.B. 1126, PG. 19

EXISTING VARIABLE RW  
KYTC PLANS SP 8-550 &  
SP 8-850-11



N16°47'59"E 685.76'

LOT 7

OUR LADY OF GOOD  
COUNSEL CHURCH  
D.B. 1126, PG. 22

N85°02'31"E  
100.00'

LOT 9

HOME SWEET  
HOME TRUST  
D.B. 1126, PG. 19

LOT 6

OUR LADY OF GOOD  
COUNSEL CHURCH  
D.B. 1178, PG. 794

LOT 5

OUR LADY OF  
GOOD COUNSEL  
CHURCH  
D.B. 943, PG. 270

LOT 4

HOME SWEET  
HOME TRUST  
D.B. 982, PG. 25

LOT 3

HOME SWEET  
HOME TRUST  
D.B. 1080, PG. 18

LOT 10

HOME SWEET  
HOME TRUST  
D.B. 1181, PG. 399

LOT 2

HOME SWEET  
HOME TRUST  
D.B. 1182, PG. 238

LOT 1

HOME SWEET HOME TRUST  
D.B. 1182, PG. 234

ROY K. &  
OLLIE M. NICKELL  
D.B. 832, PG. 504

BEAVER ROAD LLC  
D.B. 1138, PG. 683

N: 498950.12  
E: 1533724.77

UNINCORPORATED  
BOONE COUNTY  
EXISTING CORPORATE  
BOUNDARIES OF  
CITY OF WALTON



UNINCORPORATED  
BOONE COUNTY  
EXISTING CORPORATE  
BOUNDARIES OF  
CITY OF WALTON

N: 500298.12  
E: 1533553.65

S39°40'20"E  
94.39'

S04°57'29"E 235.55'

N26°36'50"E 505.27'

N77°17'29"W  
104.80'

S04°57'29"E 553.50'

INTERSTATE 75

S04°57'29"E 523.90'

N67°59'28"W 642.50'  
KY HWY 1292

EX 20' RW  
KYTC HIGHWAY PLAN  
R.S. 8-450-1

BEAVER ROAD

SKYWAY DRIVE  
(Public)

# Our Lady of Assumption Concept Plan

472 Beaver Road Walton, Kentucky 41094

Zoning Map Amendment +  
change in Concept Dev. Plan  
APPROVED with conditions  
Staff *June K. [Signature]*  
Date *11/2/22*  
Boone County  
Planning Commission

**SITE DATA**

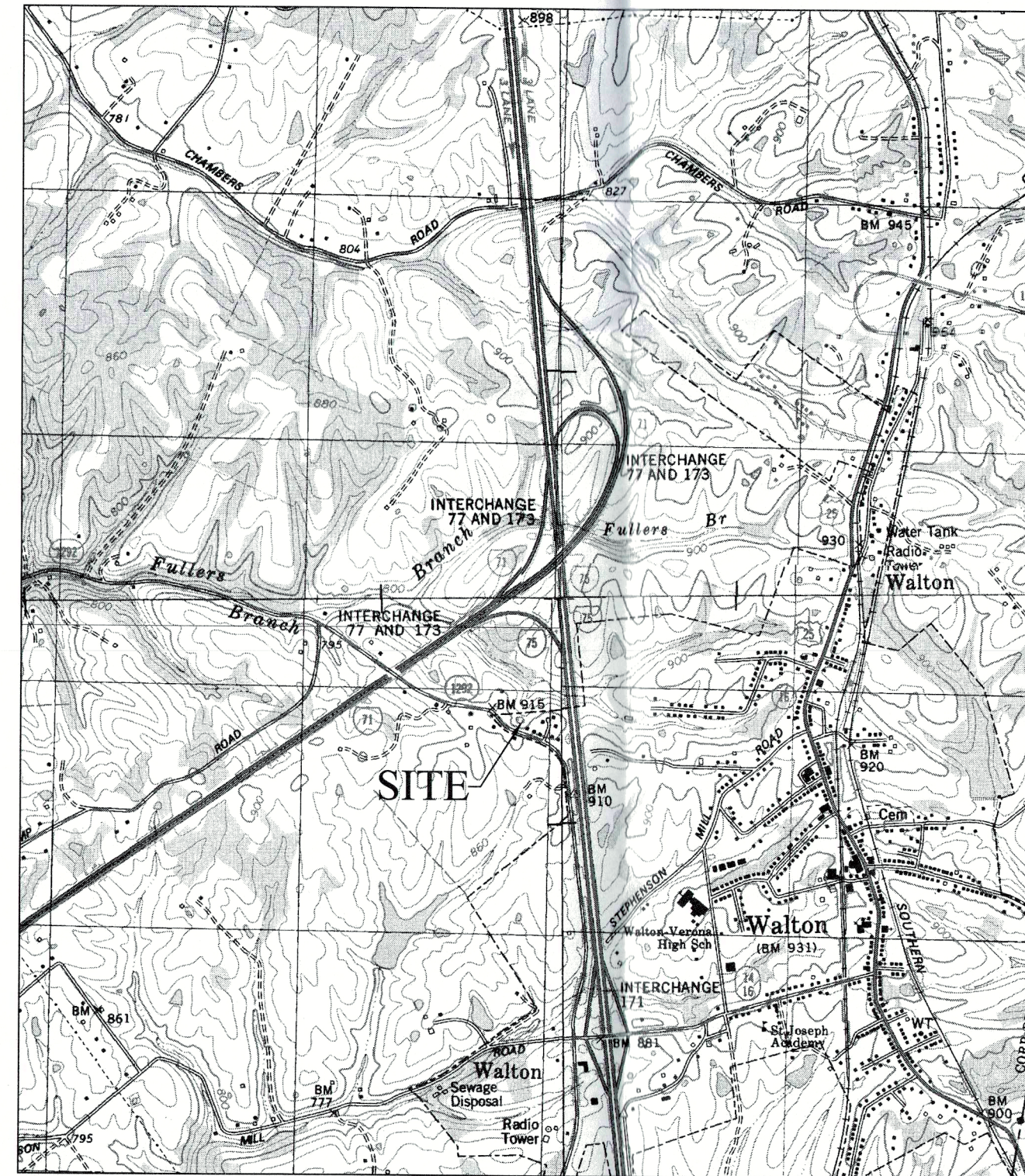
Site Location: 472 BEAVER ROAD  
Total Acreage of Site: 15.73 ACRES  
Total Acreage Under Review: 7.52 ACRES  
Property Owner:  
OUR LADY OF GOOD COUNCIL CHURCH  
13469 POOLE ROAD  
VERONA, KY 41092  
Current Use: CHURCH  
Proposed Use: CHURCH & SCHOOL  
Parcel ID:  
077.00-00-030.01  
077.00-03-007.00  
077.00-03-007.01  
077.00-03-005.00  
077.00-03-006.00  
077.00-03-004.00  
077.00-03-003.00  
Current Zoning: SR-1 & PF/CD

**PARKING SUMMARY**

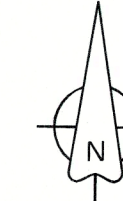
Proposed Use - Church & School  
Parking Required:  
2 spaces per classroom  
12 classrooms + 3 future classrooms = 15 classrooms \* 2 spaces = 30 spaces  
1 space per 8 seats in auditorium  
312 seats in auditorium / 8 = 39 spaces  
Total spaces required = 69 spaces  
Existing Parking: 108 spaces  
Provided Parking: 80 spaces  
**TOTAL SPACES PROVIDED = 188 SPACES**

**SITE ZONING DATA**

Current Zone: SR-1  
Minimum Lot Size = 40,000 sf  
Maximum Intensity = 4 d.u. per acre  
Minimum Frontage = 50 Ft  
Maximum Height = 45 Ft  
Minimum Front Yard Setback = 20 Ft  
Minimum Rear Yard Setback = 30 Ft  
Minimum Side Side Yard Setback = 5 Ft on each side  
Current Zone: PF  
Minimum Lot Size = 20,000 sf  
Maximum Intensity = 25,000 sf  
Minimum Frontage = N/A  
Maximum Height = 70 Ft  
Minimum Front Yard Setback = 30 Ft  
Minimum Rear Yard Setback = 50 Ft (when adjoining SR-1), 10 Ft (otherwise)  
Minimum Side Side Yard Setback = 50 Ft (when adjoining SR-1), 10 Ft (otherwise)



USGS MAPS  
SCALE: 1:2000



**NOTE:**  
IT SHALL BE THE FULL AND COMPLETE RESPONSIBILITY OF THE CONTRACTOR TO MEET AND COMPLY WITH SAFETY REQUIREMENTS AND REGULATIONS AS ESTABLISHED BY OSHA OR ANY OTHER REGULATORY BODY. THE OWNER AND ENGINEERS WILL NOT PERFORM ANY SAFETY COMPLIANCE INSPECTIONS. AS THE CONTRACTOR HAS ACCEPTED FULL AND COMPLETE RESPONSIBILITY FOR PERFORMING SUCH INSPECTIONS FOR COMPLIANCE TO THE REGULATIONS, THE CONTRACTOR SHALL INDEMNIFY AND PROTECT AND HOLD HARMLESS THE OWNER AND ENGINEER FOR ANY LOSS, EXPENSE, FINE, DAMAGE OR SUIT, INCLUDING ATTORNEY'S FEES, ARISING OUT OF ANY SAFETY VIOLATION BY OSHA OR ANY OTHER REGULATORY BODY, AS A RESULT OF THE CONTRACTORS WORK.



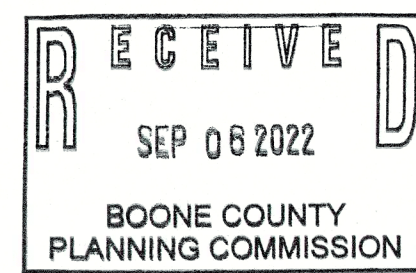
Location of utilities and structures, both surface and sub-surface, are shown on the plans from data available at time of bidding, and are not necessarily complete or correct. During construction the contractor shall use diligence in protecting from damaging all existing utilities and structures whether shown on the plan or not. If damage is caused, the contractor shall be responsible for the repair or restoration of same to the satisfaction of the engineer or appropriate authority.

PRIOR TO ANY EXCAVATION FOR UNDERGROUND UTILITIES, CONTRACTOR MUST EXPOSE AND VERIFY LOCATIONS BOTH HORIZONTAL AND VERTICALLY OF ALL EXISTING UTILITIES. ANY CONFLICTS SHALL BE REPORTED IMMEDIATELY, TO THE ENGINEER AND THE APPROPRIATE AUTHORITIES.

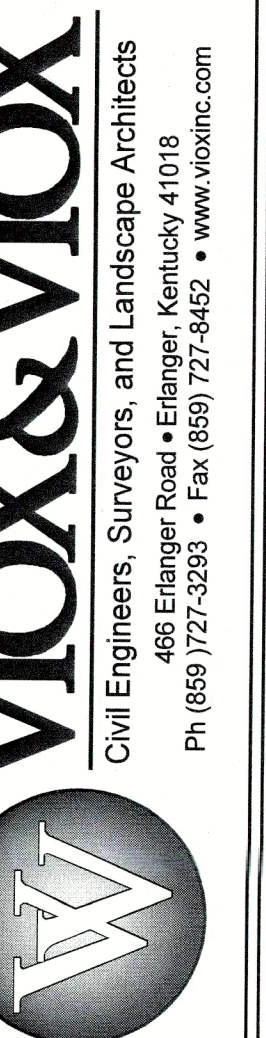
**PROJECT CONTROL**  
Vertical Control was established by real time kinematic GPS using KYTC Virtual Reference Station via cell phone.  
HORIZONTAL CONTROL = NAD 83 (NSRS 2007) KY, S.P.C.S. NORTH ZONE  
U.S. FEET VERTICAL CONTROL = NAVD 88 - U.S. FEET

\* ALL SUBMITTALS MAY NOT INCLUDE ENTIRE SET OF DRAWINGS

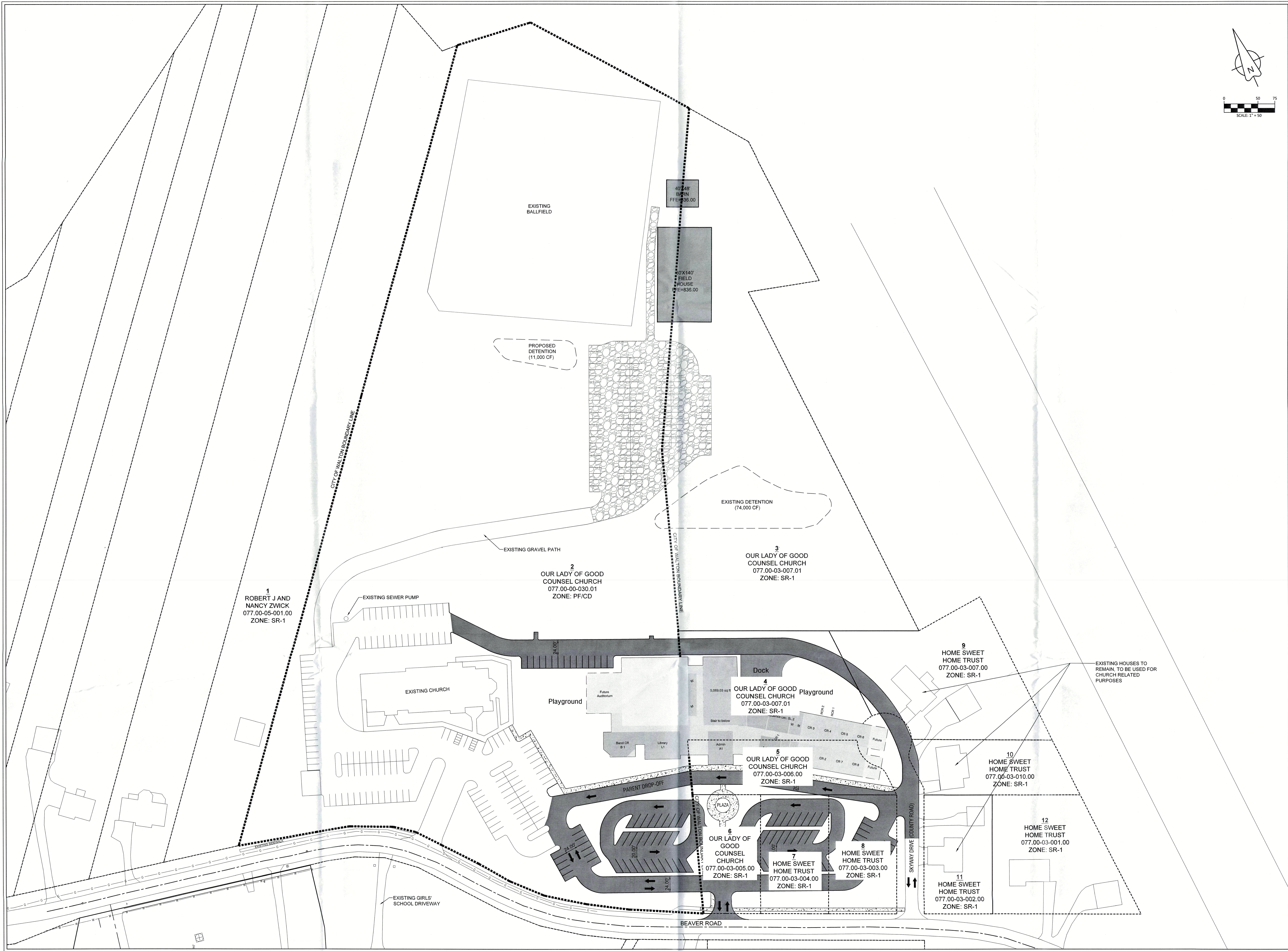
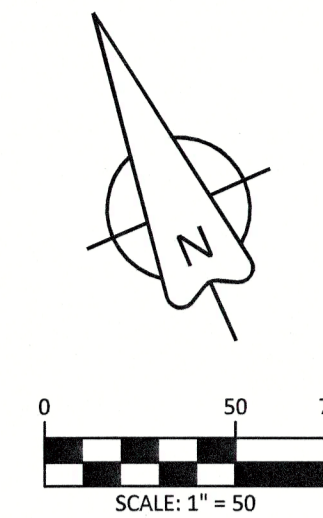
SHEET INDEX	
SHEET NO.	DRAWING TITLE
C-1.0	COVER SHEET
C-2.0	LAYOUT PLAN
C-3.0	GRADING & UTILITY PLAN
C-4.0	VEHICLE CIRCULATION



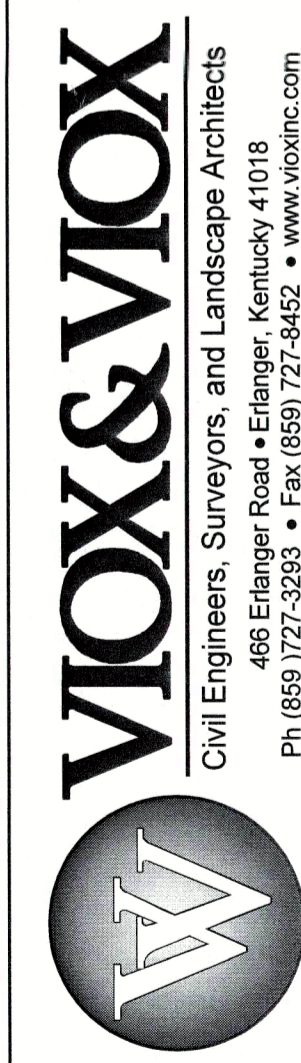
Our Lady of Assumption - Concept Plan  
Walton, Kentucky 41094  
472 Beaver Road  
Our Lady of the Assumption Church



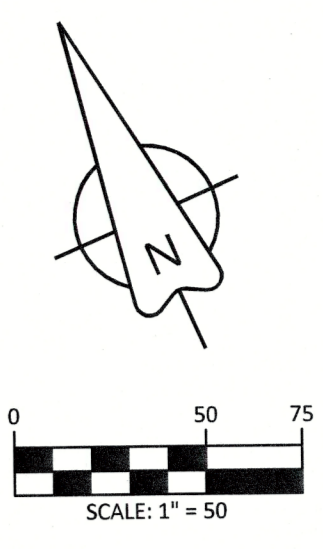
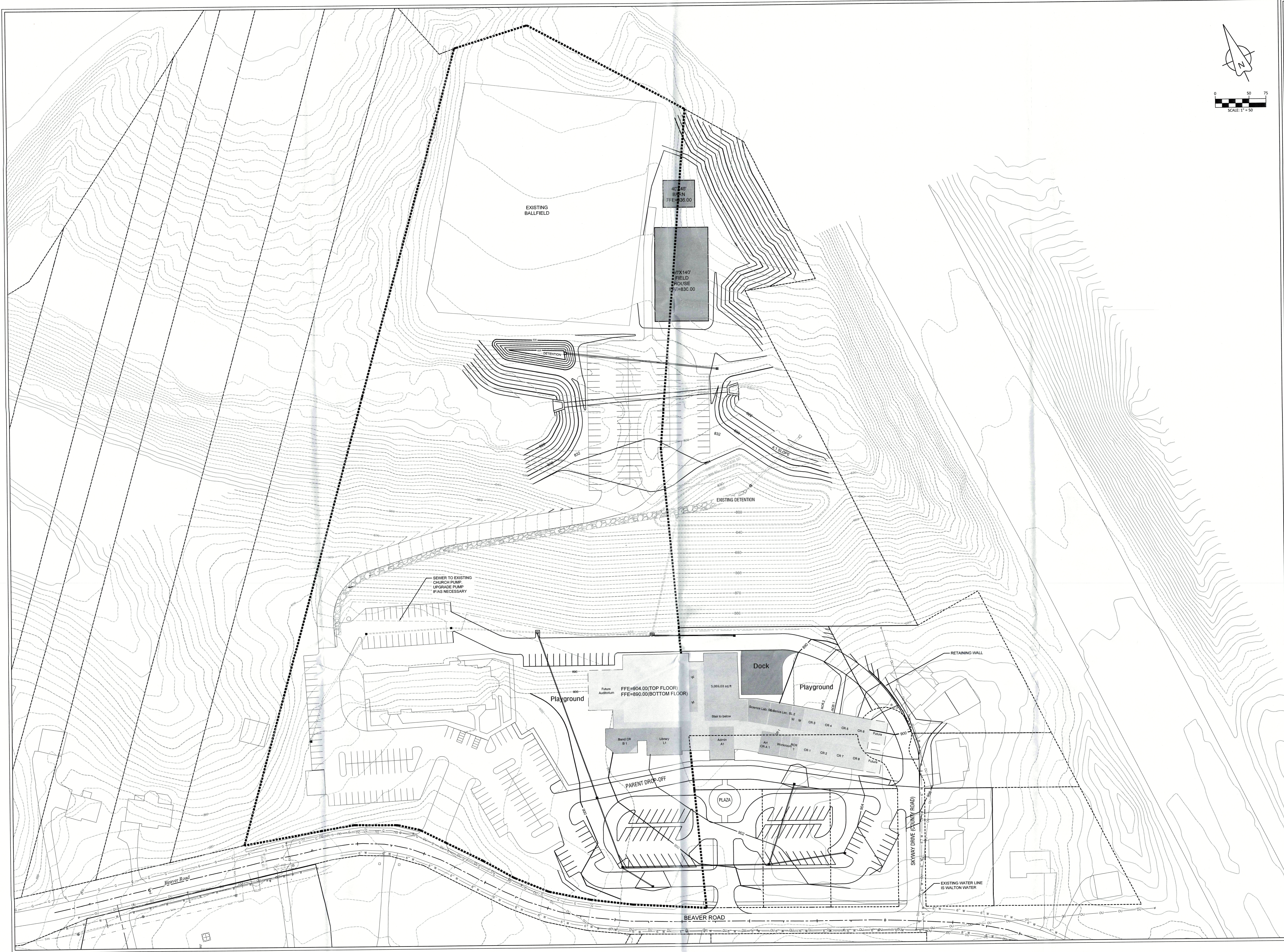
Date: 8/30/22  
COVER  
Sheet  
C-1.0



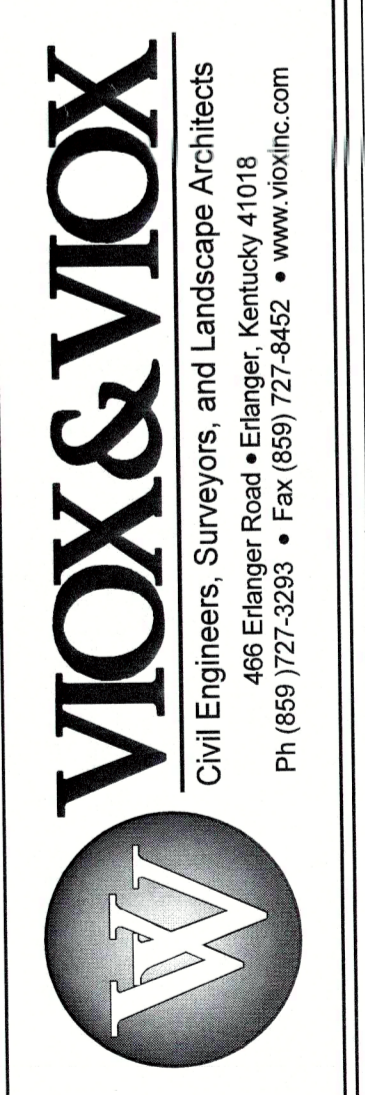
**Our Lady of Assumption - Concept Plan**  
 472 Beaver Road  
 Our Lady of the Assumption Church  
 Walton, Kentucky 41094



Date: 8/30/22  
 LAYOUT PLAN  
 Sheet C-2.0

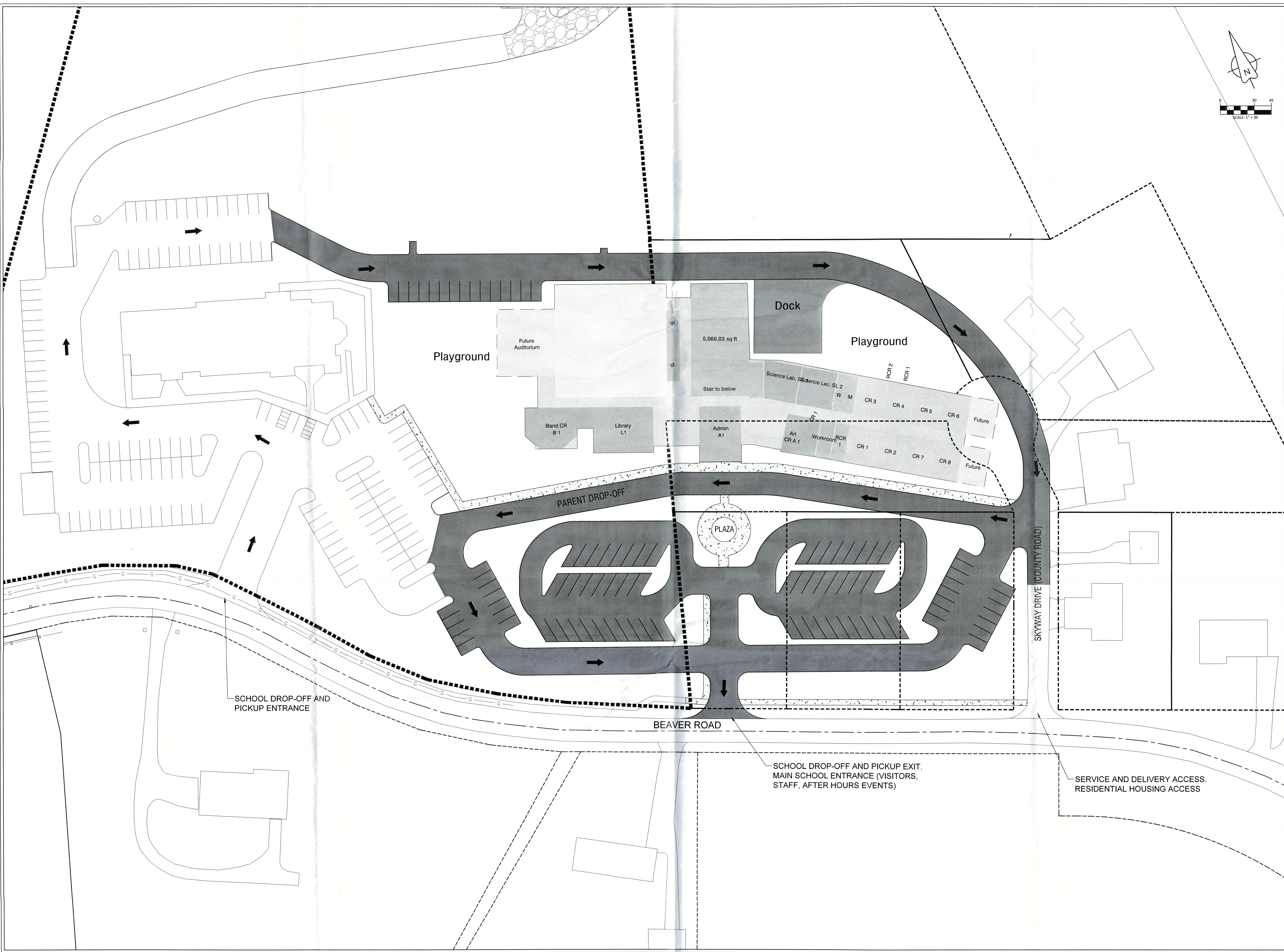
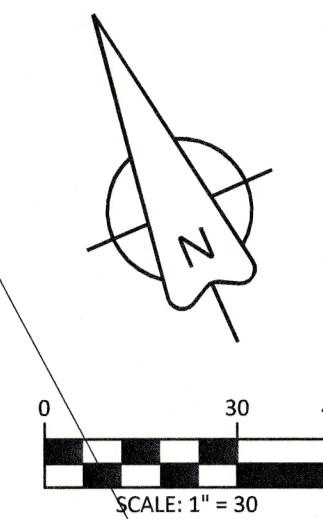


**Our Lady of Assumption - Concept Plan**  
 472 Beaver Road  
 Our Lady of the Assumption Church  
 Walton, Kentucky 41094

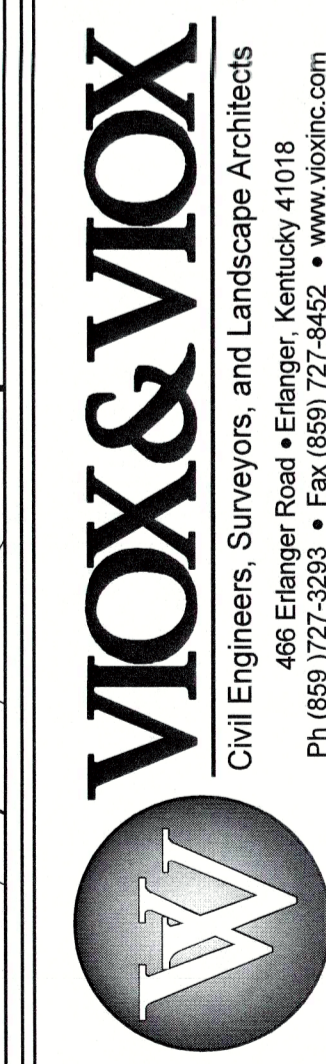


Date: 8/30/22  
 GRADING & UTILITY PLAN  
 Sheet  
**C-3.0**

486 Erlanger Road • Erlanger, Kentucky 41018  
 Ph: (859) 727-5293 • Fax: (859) 727-5452 • www.vioxinc.com



**Our Lady of Assumption - Concept Plan**  
Walton, Kentucky 41094  
472 Beaver Road  
Our Lady of the Assumption Church



Date: 8/30/22  
VEHICLE CIRCULATION  
Sheet  
**C-4.0**